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ABSTRACT

This report presents the findings on the long-term economic progress of American blacks. The report consists of seven sections. The first is a general introduction. Section 2 describes major changes in the racial wage gap for males from 1940 to 1980 and identifies the distribution of wage gains among important subgroups in the black population. Section 3 describes differential racial trends in schooling and the income benefits associated with education. Section 4 deals with the influence of two dimensions of geographic location: black migration to the North and the increasing urbanization of the black population. The extent to which education and place of residence "explain" trends in black-white wage ratios are summarized in Section 5. Section 6 discusses the implications of three historical developments in recent black economic history: the invention of the mechanical cotton picker, the declining workforce participation rates of low-income blacks during the 1970s, and affirmative action. The final section speculates about likely future trends in the racial wage gap. The 40-year record clearly points to a large improvement in the relative economic status of black men. Although black poverty persists, a large black middle class has emerged. The largest wage improvements were found among younger blacks and college-educated blacks. Education has helped significantly to close the income gap, particularly through the narrowing of education disparities between the races and the improved economic return to black schooling. (KH)

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Rand
1700 MAIN STREET
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PREFACE

This research was supported by U.S. Department of Labor Contract No. J-9-M-20126 from the Office of the Assistant Secretary for Policy to The Rand Corporation and Unicon Research Corporation. It is part of a larger research effort that will trace the evolving economic status of black Americans from the end of the Civil War to our own time.

James P. Smith is a Senior Economist at The Rand Corporation and the Director of the Labor and Population Program. Finis R. Welch is a Professor at the University of California, Los Angeles, and Chairman, Unicon Research Corporation.

SUMMARY

Forty years ago, Gunnar Myrdal published his masterwork on race relations in America, *An American Dilemma*. He began his chapter on the economic situation of blacks with the following summary:

> The economic situation of the Negroes in America is pathological. Except for a small minority enjoying upper or middle class status, the masses of American Negroes, in the rural South and in the segregated slum quarters in Southern cities, are destitute. They own little property; even their household goods are mostly inadequate and dilapidated. Their incomes are not only low but irregular. They thus live from day to day and have scant security for the future. Their entire culture and their individual interests and strivings are narrow.[1]

In the forty years since Myrdal's bleak assessment, this country has gone through a series of dramatic and far-reaching changes. The economy shifted from its traditional agricultural and manufacturing base to one that is service and technology oriented. As part of this shift, a major technological advance during the 1950s eliminated the system of black sharecropping in cotton, the primary economic activity of Southern blacks since the Civil War. As a result, large numbers of Southern rural blacks accelerated the movement to the inner cities of the North, eventually transforming the black population from predominately rural to largely urban. During the 1970s, the American economic structure suffered additional shocks. Because of increased international competition, the older industrialized sectors of the Northeast and North Central states, where blacks had made hard-won advances, were particularly hard hit.

Racial tensions have persisted throughout this forty-year period. The civil rights movement achieved stunning judicial and legislative successes in the 1950s and 1960s, partly by appealing to the moral conscience of the nation. The Civil Rights Act of 1964 and subsequent executive orders prohibited employment discrimination on the basis of

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[1] *The American Dilemma*, p. 205.

race. Today, many believe that the Civil Rights movement has lost its way as it has attempted to move beyond guaranteed civil and political rights to strive toward economic equity. Others charge that it has also lost the moral high ground because of repeated accusations that it has defended reverse discrimination. Controversy also besets affirmative action--the legislative program for employment anti discrimination and enforcement. Many scholars now question whether affirmative action has even achieved its primary aim of improving wages and employment for minorities.

Postwar progress in race relations has been marred by race riots in American cities. In reaction to these riots, twenty years after Myrdal, a presidential commission issued the Kerner Report. Its portrait of black America was as bleak as that of Myrdal two decades earlier. Its pessimism about the economic status of blacks was compounded by its sense of hopelessness about the prospects for the future.

That pessimism and the pervasiveness of black poverty prodded government to devise an elaborate system of publicly financed assistance that in some way now touches a majority of blacks. The primary aim was to provide a safety net, protecting black families from the worst ravages of poverty; but critics have charged that the safety net evolved into a web, trapping blacks into a self-perpetuating culture of poverty.

This research project was based on a conviction that a reassessment of the long-term economic progress of American blacks is in order. Our reassessment is made possible by the recent 1980 Census micro data file as well as the newly released micro data files for the 1940 and 1950 Censuses. These data allowed us to conduct the most comprehensive examination of the economic status of black America since Myrdal. In doing so, we have found a partial American Resolution to his American Dilemma.

We took up several issues in this report. Our most basic concern was whether the economic lot of black men has improved significantly since Myrdal's day. We went beyond that issue by also examining whether economic progress has touched all parts of the black community. We dealt also with the thorny problem of isolating the underlying causes of black economic progress. We sought to determine, for example, the extent to which education and its quality, migration to the North, and affirmative action have affected the economic progress of blacks. Finally, we looked to the future and made an assessment about the likelihood of further racial economic progress.

SIGNS OF PROGRESS

Several salient trends in the size of the racial wage gap between 1940 and 1980 were identified in this report. Most important, this forty-year record clearly points to a significant and quantitatively large improvement in the relative economic status of black men. In 1940, the typical black male earned around $4,500 (in 1984 dollars); a similarly employed black male earned almost $19,000 by 1980. Between 1940 and 1980, black male wages increased 52 percent faster than white. The typical black male worker in 1940 earned only 43 percent as much as his white counterpart; by 1980, the figure was 73 percent.

The extent of the improvement in the relative economic status of blacks over the last forty years is obviously impressive. This improvement is largely an untold story, belying the widely held view that the relative economic position of blacks in America has been stagnant. However, one must remember that even in 1980, black male incomes still significantly lagged behind those of whites.

We also investigated the notion that the wage gains achieved by black men would disappear over their work careers. Some observers have expressed concern that significant parts of these wage gains would eventually be lost as competition between the races intensifies over job careers. However, the reality is that, if anything, black men actually improved their status relative to whites as their respective careers unfolded. Among every cohort of workers between 1940 and 1980, black men narrowed the gap between their incomes and those of their white contemporaries as their careers evolved.

THE DISTRIBUTION OF BLACK ECONOMIC PROGRESS

As part of our project, we examined the distribution of these wage gains within the black male population. Our concern was that these average labor market gains were heavily skewed, with some blacks receiving the bulk of the benefits, leaving large numbers of black men behind. The evidence does not support this view. Whether we distinguish among low- or middle-income blacks, between the old and the young, or the more and less educated, the incomes of black men have risen relative to comparable whites. The only group of working black males whose relative wage gains could accurately be characterized as small were those within the bottom 10 percent of the black income distribution. While all blacks participated in this economic progress, some groups did gain more than others. For example, younger blacks gained more relative to whites than did more experienced black workers. And when we separated our samples by education class, we found that college-educated blacks enjoyed the largest wage improvement.

Our study of income distributions yielded a number of important findings. If income is the measuring rod, black and white men were indeed divided into two separate and unequal societies in 1940. In that year, only one in twelve black men earned incomes larger than that of the average white. While by no means identical, these two income distributions have converged sharply across these forty years. By 1980, 29 percent of working black men had incomes above that of the median white.

Our research simultaneously illustrates the persistence of black poverty, the growth of the black middle class, and, more recently, the emergence of a nonnegligible black upper class. In 1940, three-quarters of black men were destitute, with little hope that their lot or even that of their children would soon improve. The black middle class in 1940 was correspondingly small, counting among its members only one in five black men. At the other extreme, the black economic elite resembled an exclusive white club.

The changes over the last forty years were dramatic. Fully 20 percent of working black men in 1980 were still part of the poor black underclass, a reminder that many blacks remained left out and left behind. But placed in historical perspective, such figures still represent enormous progress toward eradicating black poverty. Political rhetoric on the race issue must eventually balance two compelling truths. America has made considerable strides in reducing black poverty; but by the standards of a just society, black poverty remains at unacceptably high levels.

However, the real story of the last forty years has been the emergence of the black middle class, whose income gains have been real and substantial. The growth in the size of the black middle class was so spectacular that as a group it outnumbers the black poor. Finally, for the first time in American history, a sizable number of black men are economically better off than white middle-class America. During the last twenty years alone, the odds of a black man penetrating the ranks of the economic elite increased tenfold.

CAUSES OF THE NARROWING WAGE GAP

In this report, we tried to quantify how much of the closing of the racial gap was due to black gains in education and its quality, and how much should be attributed to migration and the resurgence of the Southern economy. First, we explored schooling's role in promoting black economic mobility and in explaining the closing of the racial wage gap. Many observers have disputed the historical importance of schools as a vehicle for achieving pay equity. Their claim is based largely on two beliefs. First, they point to a series of historical studies showing that black income-benefits from schooling were negligible. They also argue that long-term advances in black education did not produce any closing of the racial income gap, at least until the mid-1960s. In this report, we demonstrate that black schools have played a far more fundamental role in shaping the economic history of blacks than these claims would suggest.

Our evidence began with a description of some prominent patterns associated with racial wage ratios across schooling classes. Racial wage disparities within education levels have historically been quite large. Evaluated at the same amount of schooling, black male wages averaged 50 to 55 percent of those of white men. By 1980, comparably educated black men earned 75 to 82 percent as much as white men. These wage ratios were 10 percentage points higher than the aggregate ratio across all schooling groups in those years. That contrast informs us that education does play a significant role in explaining part of the racial wage gap. However, it also warns us that simply equalizing the number of years of schooling alone would leave a sizable racial wage gap left unexplained.

Across the full forty-year period, the two dimensions of education that closed the racial wage gap, in a quantitatively significant way, were the narrowing of education disparities between the races and the improving economic return to black schooling.

CONVERGENCE IN SCHOOLING

Our first step in assessing the overall impact of schooling towards explaining the closing of the racial wage gap was to examine the extent to which black educational accomplishments have been catching up to those of whites. Not surprisingly, the education levels of each new generation of workers increased over the last forty years. While this trend exists for both races, it has been much sharper for black men. Educational differences still persist between the races, but they are far less today than at any time in our history. In 1980, a typical black man had a year and a half less schooling than the average white male worker. A majority of black men in 1980 were high school graduates. Forty years earlier, white men had 3.7 years more schooling than did the black male workers with whom they competed in the labor market. The typical 1940 black worker had completed only 4.7 years of schooling. During the last forty years, 60 percent of the education gap between the races had been eliminated.

Based on our study, approximately one-third of the forty-year narrowing of the racial wage gap can be assigned to the smaller racial differences in schooling completed in 1980 than in 1940.

SCHOOL QUALITY

The second part of our story concerned what schooling was able to buy in terms of increased labor market earnings. In our research, we obtained estimates for each race of the monetary economic payoff associated with an additional year of schooling. The income benefits that blacks received from schooling were, indeed, historically quite low. In 1940, attending school for another year raised black male wages by less than 4 percent--half the amount for whites. Matters had improved little by 1950. Among older black workers, each year of schooling increased wages by less than 3 percent.

Over the last forty years, however, a persistent narrowing of racial differences in income benefits from schooling took place. The end result of this forty-year persistence is that the magnitude of change became quite large. For example, among those in their first five years of work in 1940, white men's income increased 5 percent more than did black men's for each additional year of school attended. In that year, for example, white men's income would increase 20 percent more than black men's as a result of attending and completing college. However, this white advantage declined as each new cohort of workers entered the labor market. In fact, among men who first entered the labor market during the 1970s, the income benefits that blacks received from schooling now exceed those of white men.

Alternative explanations can be offered for this racial convergence in the economic payoff from schooling. The Civil Rights movement and its associated anti-discrimination legislation during the 1960s is one obvious candidate. Affirmative action attempts to increase black employment in those high-skill jobs where they previously had been scarce. Consistent with this argument, the increase in the income benefits to black education was more rapid in the 1970s and 1960s than it was earlier.

However, affirmative action cannot be the whole story nor, for that matter, a very large part of it. The principal reason is that the increase in the economic benefits of black schooling began long before the affirmative action pressures of the last two decades. More than half of the narrowing of the gap in income benefits from schooling between the races took place before 1960. As a result, the narrowing of racial differences in the benefits from education was as large during the twenty years from 1940 to 1960 as it was in the twenty years after 1960.

Because of this, we must search for causes that lie far deeper in black American history than contemporary political movements. The root cause of the improvements in black economic payoffs to schooling lies within long-term improvements across birth cohorts that enabled blacks to translate an incremental year of schooling into more income. The evidence we have accumulated clearly points to improving quality of black schools as the most plausible explanation for this improvement. This consistent picture of simultaneous convergence in all dimensions of schooling quality makes the overwhelming case that improving relative quality of black schools is the underlying cause of the increase in black economic benefits from education relative to those of whites.

Our research indicates that the long-term historical impact of investments in black schools--both in additional years of schooling and in the quality of that schooling--was enormous. Improvements in the quality of black schools increased black wages relative to those of whites from 11 to 38 percent, with younger blacks at the higher end of that range. Adding these quality effects to the gains achieved for quantity of schooling, black education is identified as the key factor elevating the long-run economic status of black men.

RESIDENTIAL LOCATION

Americans have always tried to improve their economic lot by moving to places where prospects for their economic advancement were better. Since the end of slavery, large numbers of black men have exercised their freedom to choose the place where they lived and worked. For many decades, most of this migration took place within the South. Beginning in 1910, the great black migration northward started, a movement which accelerated after 1940.

Alongside these changes in residential location, the regional structure of the American economy has been so transformed that it bears little resemblance to that of 1940. In this report, we investigated the impact of these changing patterns of regional location and growth on the racial wage gap. As part of this investigation, we quantified the long-run impact of three geographic dimensions: migration, differential regional growth, and the erosion of geographic dispersion in the racial wage gap.

MIGRATION

We first measured migration's direct effect--the percentage increase in black-white wages that results from the movement of blacks from low-wage to higher-wage areas. Two dimensions of migration were highlighted: the movement North and to urban places.

The years from 1940 to 1970 witnessed a massive movement of blacks from the South to the cities of the North. As a result, the percentage of black men living in the South declined from 75 percent to about 50 percent. After 1970, however, the flow reversed and the net movement of blacks turned to the South. Meanwhile, the distribution of the white population between the South and North remained remarkably stable. Slightly less than 30 percent of white men lived in the South, a figure that has stayed roughly the same for decades.

While the great Northern migration had profound effects, it is also easy to exaggerate them. Even today, a slight majority of blacks remain citizens of the South where, more so than whites, their economic well-being is closely tied to the robustness of the Southern economy.

This century has also witnessed the transition of the black citizenry from largely rural to predominately urban. Although it began in the early decades of the century, this transition was completed during the forty-year period that we study in this report. Relative to whites, the largest changes in black urbanization occurred in the twenty years between 1940 and 1960. Today, the principal locational difference between the races is where they live within urban areas. The majority of whites live in the suburban fringes, most blacks in the central cities. Fully 75 percent of all black SMSA residents live in the central cities, compared with only 38 percent of whites.

Migration was an important source of the long-run closing of the racial wage gap. Southern black migration to the Northern cities increased black-white male wage ratios by 11 to 19 percent between 1940 and 1980. These gains were a reflection of the movement both from the South to the North and from rural to urban places. The direct wage-benefits from migration rival convergence in education as a factor closing the racial income gap.

The income gains from migration, however, have diminished steadily over time and, by 1970, were exhausted. The black people were essentially transformed from their rural Southern base to a predominately urban group during the twenty years after 1940. As a consequence, the positive black benefits from going to urban places were largely completed by 1960. The wage gains achieved from moving North lasted another decade.

The end of the great black movement North during the 1970s was a signal that the wage blacks could achieve from migration had largely been exploited. Today, the racial wage gap is only 6 percent larger in the South than in the North, compared to the 20 percent differentials that prevailed before 1970. Consistent with this disappearance of geographically based racial wage disparities, the era of black inter-regional migration, on a large scale, is over.

REGIONAL ECONOMIC GROWTH

We also examined regional differences in the black-white wage gap. Men of both races traditionally earned less in the South than in the North. Until the last decade, Southern white men received about 10 percent lower wages than white men elsewhere. As is well known, the black-white wage gap was much larger in the South than the rest of the country. Until recently, black weekly wages were approximately 30 percent lower in the South than black wages in the North.

No long-term secular trend exists between 1940 and 1970 in the mean wage gap between the North and South. After 1970, however, wages of men of both races increased faster in the South than in the rest of the country. These wage increases in the South were particularly large among younger workers. Between 1970 and 1980, wages of young Southern whites increased 5 percent more than Northern white wages. The most plausible cause of this differential wage growth was the economic resurgence of the South during the last decade.

The second dimension of geographic wage disparities we studied concerned urban-rural differences. Men who live in SMSAs earn higher wages, a wage premium well documented in the literature. Among whites, this urban wage premium has declined over time. White residents of

SMSAs earned 33 percent more than other whites in 1940; by 1980 this wage premium had been reduced to 20 percent. Across these forty years, these SMSA wage differentials have been quite similar for blacks. Over time, the income benefits associated with living in SMSAs have simply eroded. Similarly, the wages earned in central cities have also declined over time. In 1940, black men in central cities earned a 10 percent wage premium; by 1980, there was a wage penalty of 10 percent for black residents of central cities. The long-term economic decline of the central cities is the most likely cause of the deteriorating wages for black central city residents.

The net impact of differential economic growth among regions over time is relatively small, producing a net loss of 3 to 6 percent in relative black incomes. Most of this loss is due to declining wages in central cities, a reflection of their long term economic decline. The rising economic position of the South had little impact across the last four decades, partly because it was limited to the last 15 years. But even this recent Southern growth raised black incomes, relative to whites, by only 2 percent. Apparently, the economic revival of the South largely benefitted black and white men alike.

REGIONAL RACIAL WAGE GAP

Our main interest centered on the racial wage gap in the South. Until 1960, that gap was about 20 percent greater than in the North. Between 1960 and 1970, the gap narrowed for younger workers but remained at historical levels among mature male workers. However, the truly dramatic story occurred between 1970 and 1980: The black-white male wage gap declined very sharply in the South. These racial wage differentials fell by half to two-thirds of their 1970 levels. As a result, the Southern racial wage gap has moved toward the national norm. Today, the racial wage gap is only 6 percent higher in the South, compared with the 20 percent differentials that prevailed before 1970.

Two possible explanations exist for this rapid narrowing of the racial wage gap. First, black-white skill differences may have converged in the South as the post-World War II cohorts entered the labor market. For example, the first class of Southern black children who had attended entirely desegregated schools would have first entered the labor market in the early to mid-1970s. But because there was a substantial erosion in racial wage disparities even among older workers, that is unlikely to be the whole story. A more complete explanation may well be that racial discrimination is waning in the South.

The narrowing of the racial wage gap in the South was an important reason why blacks were catching up. The improving black situation in the South raised black-white male wages, at a nationwide level, by 4 to 10 percent between 1940 and 1980. Virtually, all this improvement took place during the 1970s. To summarize our two major findings on geographical location: Migration raised black wages 11 to 19 percent between 1940 and 1980; the closing of the Southern wage gap added another 4 to 10 percent.

AGRICULTURE

Forty years ago, the traditional system of sharecropping in Southern cotton still dominated the economic activities of blacks. By 1940, one-third of all black men were still employed in agriculture. But the changes after 1940, and particularly between 1940 and 1960, were swift. As a percent of the total work force, black agricultural employment fell by 70 percent between 1940 and 1960. By 1960, only one in ten black workers worked on the farm, with rates even lower among young black workers. And ten years later, in 1970, black farm employment, particularly among younger workers, was a thing of the past. We can now safely describe, for the first time in American history, the economic role of blacks with no mention of agriculture.

There were long term trends already in place in 1940 that were shifting the black labor force out of agriculture, but this process accelerated markedly during the 1950s. Since the Civil War, cotton cultivation had remained a labor-intensive process.

The technological change that would revolutionize black agriculture was the introduction of the mechanical cotton picker. In 1950, over 90 percent of all cotton produced in the U.S. was picked by hand. Twelve years later, in 1962, over 70 percent was picked by machine.

These changes in the methods of cultivation reduced the demand for black labor in Southern agriculture and also ended the system of tenant sharecropping. One of the consequences of ending the system of tenant farming is that there was a switch from tenants to hired wage labor. As a result of the use of the cotton picker, output per man rose by 238 percent between 1950 and 1970 in a period during which total farm output rose by 36 percent.

As a consequence, during the 1950s, there was a sharp decline in the demand for a largely Southern black labor force in cotton. This gave additional impetus to the migration of young Southern blacks to the North. There were negative short-run consequences, but positive long-run effects. In the short run, this reduction in demand for black workers temporarily reduced black incomes. In our view, this is the primary reason why the 1950s were a temporary departure from the long run trend towards improving economic status of blacks. However, the long-run effects were quite different. Blacks were able to end their dependence on low-wage Southern agriculture and become more integrated into a wider scope of American economic activity.

LABOR MARKET PARTICIPATION

In spite of the improvement in their labor market opportunities, an increasing number of black men have dropped out of the labor force in the middle of their careers. For both races, the fraction of men who worked at least one year has remained basically stable from 1940 to 1970. However, these participation rates declined sharply after 1970 and did so at a much more rapid rate among black men. For example, black labor-force participation rates fell by almost 6 percentage points among men 36 to 45 years old, four times the decline observed among whites. The drop is even steeper among those 46 to 54 years old, where black labor-force participation rates fell by 10 percentage points. Once again, the fraction of black men who left the labor force far exceeds that of white men. Within each race, the sharpest declines in labor market work occurred among the less educated.

Most economic research has indicated that the increased generosity of the Social Security Disability Program was the primary cause of this decline in market participation among mature men. The concentration of these falling participation rates among blacks and among the less educated suggests that the men who dropped out of the labor force had lower incomes than those who remained. Because of this correlation with income, these declining participation rates could distort observed trends in black-white wages during the 1970-1980 period. In particular, some have argued that these supply side reductions in the relative number of working black men was an important cause of the post-1965 rise in the relative income of blacks, at least among older workers. In a nutshell, the argument is that many low-income blacks left the labor market between 1970 and 1980. As a result, the wages of the black workforce (which now excludes those low wage blacks) would artificially rise.

Our research attempted to test this hypothesis. Black-white male wage ratios in 1980 were adjusted for the more rapid declines in labor force participation among blacks and among the less educated. We also adjusted for the fact that, within education groups, wages of dropouts are less than the wages of those who remained in the labor force. These adjustments explain a very minor part of the observed increase in black-white male wages between 1970 and 1980 among older men.

The increasing tendency of many middle-aged black men to drop out of the labor force is an important and neglected social problem. By severing their connection with the labor force, they are forfeiting opportunities for economic self-reliance and advancement. However, our research indicates that this problem, while important for other reasons, did not significantly affect trends in the racial wage gap.

AFFIRMATIVE ACTION

Affirmative Action still dominates the political debate concerning governmental labor market policy regarding race. This debate began with the passage of the 1964 Civil Rights Act, which was aimed at eliminating employment discrimination against protected minority groups. American blacks, who had endured centuries of blatant and intense discrimination, were the principal group that this legislation was meant to protect. Since the Civil Rights Act prohibited discrimination on the basis of race and sex on all major terms of employment--pay, promotion, hiring, training, and termination--the protection was quite broad.

Two governmental agencies have been given the primary responsibility to enforce affirmative action. The Equal Employment Opportunity Commission (EEOC) was set up to monitor compliance with the provisions of the 1964 Civil Rights Act. All private sector firms with 100 or more employees were required to report to EEOC on the numbers of minorities employed and the types of jobs they held. The second major federal enforcement agency was the Office of Federal Contract Compliance Program (OFCCP). This agency was established by a 1965 Executive Order (No. 11246) and was given the primary responsibility of monitoring discrimination and enforcing penalties among government contractors.

Our research highlighted two possible labor market effects of affirmative action. The first question we asked was whether affirmative action significantly altered the firms where black men worked and the jobs they were able to obtain. The second question dealt with the wage side of work. Put simply, How has affirmative action affected the incomes of black men?

Because only establishments with 100 or more employees must report to EEOC, affirmative action reporting coverage varies widely across industries. For example, coverage is almost universal in the large-scale durable manufacturing goods sector. On the other hand, less than 10 percent of workers are covered in the retail trade, personnel services, and construction industries, where small establishments are common. As a result, firms can be divided into three sectors; (1) federal contractors, (2) other EEOC reporting firms and (3) those firms not covered by EEOC or OFCCP.

It may be surprising to learn that only about half of the non-government, non-education workforce is directly covered by affirmative action. In the same vein, federal contractors employed 35 percent of all non-government, non-education institution workers in 1980 and 70 percent of all EEOC covered workers.

EMPLOYMENT EFFECTS OF AFFIRMATIVE ACTION

We tested for employment effects by measuring whether affirmative action has altered the location of black employment among these three sectors. If affirmative action is effective and is adequately enforced, minority representation should expand more among firms that are required to report to EEOC than among firms that are not. In addition, since federal contractors have more to lose, the greatest relative gains in employment and wages should occur among those EEOC reporting firms that are federal contractors.

While such relocation of black workers should occur in total employment, the largest minority gains should be detected within professional and managerial jobs for firms that are reporting to EEOC. Once again, these changes should be even larger among those firms that are federal contractors.

Our statistical evidence strongly supports these hypotheses. Black men were 10 percent less likely to work in covered firms in 1966. By 1980, however, black men were 25 percent more likely to work in EEOC reporting firms. To put these changes in another way, less than half (48 percent) of black male workers were employed in EEOC covered firms in 1966; the figure rose to 60 percent by 1980.

The largest employment changes occurred between 1966 and 1970 (the first four years of reporting). Between those years, there was a 20 percent increase in the number of blacks working in covered firms. The trend continued at a diminished pace until 1974, and then apparently stabilized. After 1974, there was little further change in the location of black employment by EEOC coverage. Within the covered sector, black jobs shifted towards firms with contracts from the federal government. Between 1970 and 1980, black employment in non-federal contractor firms that report to EEOC grew by 5 percent. Among federal contractors, total black employment expanded by more than 15 percent.

As large as those increases in total employment seem, they pale next to changes within the managerial and professional jobs. Black managers and professionals were half as likely as white managers and professionals to work in covered firms in 1966. By 1980, black managers and professionals were equally likely to be found in covered firms. Some of this improvement is exaggerated. In our research, we found evidence that firms have been reclassifying jobs held by blacks into the professional and managerial categories, in order to inflate overall minority representation. But many of the gains in the covered sector were real. The number of black managers and professionals who work in covered employment is far larger as a result of affirmative action. Once again, this growth in black representation in managerial and professional jobs was concentrated in firms with federal contracts, and most of the change was completed by 1974.

In summary, affirmative action resulted in a radical reshuffling of black jobs in the labor force. It shifted black male employment towards EEOC covered firms and industries, and particularly into firms with federal contracts. Reshuffling is the right term, because the mirror image is that black employment in the non-covered sector plummeted. Affirmative action also increased the representation of black male workers in the managerial and professional jobs in covered firms.

WAGE EFFECTS OF AFFIRMATIVE ACTION

Unfortunately, affirmative action's ability to raise the incomes of black men has proven to be far more difficult to achieve. We reached three conclusions regarding the effect on minority incomes. First, affirmative action apparently had no significant long-run impact, either positive or negative, on the male racial wage gap. The general pattern is that the narrowing of the racial wage gap was as rapid in the twenty years prior to 1960 (and before affirmative action) as during the twenty years afterwards. This suggests that the slowly evolving historical forces we have emphasized in this report that enhance the labor market skills of blacks--education and migration--were the primary determinants of long-term black economic improvement. At best, affirmative action has marginally altered black wage gains about this long-term trend.

Second, affirmative action did have a significant positive effect on wages of younger black workers, an effect that was unfortunately short-lived. In the early stages of affirmative action, covered firms were desperately attempting to increase the number of black workers they employed. To achieve this aim, they bid up the wages of young black workers, the age group where most of the new hiring was taking place. Wages of young black workers increased dramatically from 1967 to 1972, but these wage gains were eroded by 1977.

For example, among new college graduates, black men earned 75 percent as much as whites in 1966; by 1972 there was complete racial wage parity. Similarly, the racial wage gap for new high school graduates narrowed from 80 percent to 90 percent over the same years. However, after covered firms reached their target number of black workers, these wage gains evaporated. In the five years after 1972, young black male wages fell by almost 10 percent relative to whites.

The final wage impact of affirmative action was a pro-skill bias. The essential purpose of affirmative action is to increase employment of blacks in jobs where they had previously been scarce. Since there is an abundance of blacks in low-skill jobs, the main pressures will be concentrated in the higher-skill jobs where blacks had previously been scarce. The main plot of affirmative action's impact must be one of nonneutrality with respect to education, with strong positive effects for college graduates and less strong, not necessarily positive, effects at lower education levels. Young college educated blacks were the main beneficiaries of affirmative action.

GLIMPSES OF THE FUTURE

These last forty years have seen a partial American Resolution to Myrdal's American Dilemma. But what of the future? Will black progress continue at the pace of the last forty years or have we entered instead an era of black stagnation or even retrogression? This report helps to provide a more informed answer to these questions.

The lessons history teaches provide us with both optimistic and pessimistic glimpses of black America's future. The most fundamental reason for optimism is the emerging and growing size of the black middle class and particularly the black elite. There are real questions about continued racial progress, especially among the black poor. But the continued growth of the black elite is a safe bet. There are good reasons for our optimism here. Until recently, black college graduates were previously employed almost exclusively in government jobs. Now, they are moving in droves to the private sector. The real prizes in our economic race are won in the private sector, and the black elite have now joined the game.

Second, there is now substantial evidence that salary increases and promotions for the new black elite will be at least as rapid as for their white competitors. A new black leadership, fully a fifth of all black men, is being created that will be far different from the past reliance on the clergy and the civil rights organizations. Finally, the new black middle class and elite will be able to perpetuate their achievements across future generations. For the first time, many blacks now have the financial ability to secure the American dream for their children.

Unfortunately, there are also reasons for concern about the future, especially for the still large black underclass. There was nothing magical about the long-run black progress we document in this report. It reflected hard-won underlying achievements that enhanced black market skills, in the context of a forty-year period of rapid American economic growth. Take away those underlying achievements and lose that growth, and black progress will stop.

One of the underlying causes, migration, has already lost its clout. With the end of the substantial black wage disparities between the South and the North, the potential for further sizable black wage gains from migration is minute. There are good reasons as well to be concerned about continued progress in the quality of black inner city Northern schools.

During the last decade, there were four other disquieting signs that temper our optimism: the deterioration of the black family, the decline in American economic growth, rising black unemployment, and a confused and unfocused public policy debate on race. These four events have started to blunt the translation of the still-improving black labor skills into a higher standard of living for black America. These events raise questions mainly about the future of the underclass. During the 1970s, there was continued progress in narrowing the racial wage gap among working men. For example, black working men earned 73 percent as much as whites in 1980 compared with 64 percent in 1970. But these four events dissipated some of the continuing black economic progress during the 1970s.

THE BLACK FAMILY

Economic progress has been less satisfactory, especially in recent years, for the black family. Whether male or family income is used as the yardstick, the broad trends across the forty years support our conclusion that the racial income gap has narrowed substantially. In 1980, black family income was 63 percent as high as whites, compared with a 41 percent ratio in 1940. But trends after 1960, and particularly during the 1970s, were quite different. During these twenty years, black progress was half as rapid measured by family income as that measured by male incomes. Black family incomes as a percent of white barely increased in the 1970s, rising from 61.2 percent in 1970 to 62.5 percent in 1980. During the same time, the incomes of black male workers were rising from 64 percent to 73 percent of white incomes.

Between 1940 and 1960, reductions in black family poverty also moved lockstep with declines in the number of black men who were poor. Not so after 1970. In 1980, 30 percent of black families were poor, exactly the same rate as 10 years earlier.

These trends in black male and family income have diverged so sharply in recent years because of the deteriorating state of the black family, as reflected by the increasing number of black female-headed families. In 1940, 18 percent of black families and 10 percent of white had female heads. The subsequent changes were relatively small until 1960, a year in which one-fifth of black families were headed by females. By 1980, over 40 percent of black families were female-headed compared with 12 percent among whites.

As the prototype husband-wife black families dissolve, the family incomes of the two newly constituted families will necessarily be smaller than that of the original intact family. This is particularly true for female-headed families, where the typically higher male income is lost and the ability of many women to compensate by working is constrained by their child care responsibilities. For example, the average income in female-headed black families was 54 percent of average black family income in 1980. Furthermore, 56 percent of all black female-headed families were poor in 1980.

Because of the rapidly changing composition of black families, family income has become a very poor indicator of changes in black labor market opportunities. The lack of recent improvement in black family incomes is a reflection of a growing problem in the black family, not of a decline in black labor market prospects.

The serious economic conditions faced by many black families, particularly those headed by women, can hide an often overlooked group of intact black families who are doing quite well. Of all the black demographic groups we studied in this report, black progress was most rapid in these families who have both husband and wife present. By 1980, black intact families earned 82 percent as much as white families, more than double the income ratio of 1940. Moreover, this improvement has continued unabated during the last twenty years. By 1980, only 15 percent of such families were poor, compared with 18 percent 10 years earlier. The contrasting economic progress of intact and female-headed families is an excellent illustration of an increasingly segmented black experience--growing numbers of black families participating in an affluent America while distressing numbers are left behind in the ravages of poverty.

ECONOMIC GROWTH

The sustained and rapid growth of the post-1940 American economy carried with it impressive benefits in material well-being that benefitted blacks and whites alike. How much of the long-term reduction in black poverty reflects the improving relative skills of blacks and how much is due to post-1940 economic growth? Had there been no growth, 46 percent of black working men would be poor today instead of the actual rate of 24 percent. Put another way, 45 percent of the reduction in black poverty since 1940 was due to economic growth and the remaining 55 percent to blacks' expanded labor market skills (relative to whites). Economic growth and improving black labor market skills, principally through education and job training, go hand in hand as the key weapons that history identifies as eradicating black poverty.

The importance of economic growth has had a dark side lately. Between 1970 and 1980, real earnings grew by less than 3 percent, one-tenth of the growth achieved during the previous decade. The virtual absence of real income growth during the 1970s carried a terrible price in limiting reductions in the ranks of the black poor. The disappointing American economic performance during the 1970s had many sorry consequences; one of the cruelest was that the ranks of black poor was 25 percent larger than it would have been had economic growth continued unabated at the pace of the 1960s.

What has happened to the relative economic status of blacks since 1980--the Reagan years? A fair assessment is that it is too early to tell. Real incomes of black men who worked full time were only one percent higher in 1984 than in 1980. While this compares favorably with the 5 percent decline during the Carter years, it falls well short of the standards set in the 1960s. It also falls well short of what is necessary for a significant reduction in the numbers of the black poor. The key to the ultimate evaluation of the Reagan years is whether the rest of the decade will be typical of 1980-1982, when real black incomes fell by 1.2 percent, or by 1982-1984, when black real incomes rose by 2.3 percent. If the latter, inflation-adjusted black incomes during the 1980s will rise by 8 percent, and economic growth will again diminish the ranks of black poor. If, on the other hand, another recession of the 1980-1982 type occurs, there will be little likelihood of further reductions in black poverty during this decade.

UNEMPLOYMENT

While wage-rate trends are the primary focus of our research, we also presented a brief summary of parallel trends in unemployment.

Unemployment rates for both races have moved together over time the last forty years, reflecting the overall level of economic activity, but black male rates have averaged about twice the white male rate. However, with the notable exception of young workers, there was little long-term relative racial trend in the unemployment rates of blacks. As a result, nothing on the unemployment side of the labor market counteracts the sustained economic progress of blacks on the wage side of the labor market.

The exception refers to young blacks, where there has been a sustained rise in unemployment rates relative to young whites. For example, unemployment rates of blacks 16 to 25 years old were 1.45 times those of whites in 1950. By 1980, the black youth unemployment rate was 22 percent, more than double the rate for young white men.

Our basic conclusion--that unemployment trends did not contradict our message of long-term black economic progress--must be qualified for the 1970s. Since 1970, part, but not all, of the economic progress of blacks was offset by black employment problems. During that decade, reductions in black poverty were smaller among all black men than among working black men.

PUBLIC POLICY

The final source of our concern about continued black progress is the unfocused public policy debate on race. This debate has lost sight of the basic aim of achieving long run permanent reductions in black poverty. The three issues that dominated the recent political debate--the safety net, affirmative action, and busing--are a good illustration of the problem. All three issues have their merit, but if history provides useful lessons, they are not the key to long-run reductions in black poverty.

Spurred by expanding poverty rolls, the current debate about black poverty centers on Reagan Administration cutbacks in those social programs that all sides label "the safety net." Liberals complain that the safety net is full of holes and too many black families in need are slipping through. Conservatives contend that it is a web, not a net, that traps blacks into a self-perpetuating culture of poverty. These issues are important, but the focus is shortsighted. The singleminded concentration on short-run trends and remedies is making us lose sight of two more fundamental realities. First, there has been a significant long-term reduction in the number of black poor. Second, past and future long-run solutions to black poverty lie elsewhere.

The social programs that constitute the safety net were never meant to serve as a vehicle for long-term reductions in black poverty. As the label implies, they serve principally as a necessary cushion to prevent serious and often temporary economic hardship. But the safety net does not expand skills or promote growth. As a result, the safety net alone has not been and should not be the foundation of a long-run policy of reducing black poverty.

That foundation should rely on factors that history points to as the proven eradicators of black poverty. What produced the black economic resurgence and the long-term decline in black poverty documented in this report? As with most public policy issues, there were several contributing factors. The movement of blacks from traditional Southern agricultural areas to the higher-wage Northern cities, the decline in discrimination in the South, and the safety net all deserve some credit. But the safety net cannot be the primary cause. Fully 80 percent of this forty-year reduction in black poverty took place before 1965, when the programs making up the safety net were first put into place. Furthermore, its critics and defenders agree that the safety net is not a springboard allowing blacks to catapult into the American economic mainstream.

The dominant explanation clearly lies elsewhere--in the American classroom and in the sustained and rapid economic growth between 1940 and 1970. Forty years ago, the typical black male entering the workforce finished the sixth grade--four grades less than those new white workers with whom he had to compete. Today, the average new black worker is a high school graduate and trails his white competitor by less than a year of education. And this is only half the story. Dramatic improvements in the quality of black education increased the ability of blacks to translate their schooling into more dollars in the job market. Forty years ago, whites gained twice as much income as blacks from attending school for another year. Today, there is little racial difference in the economic benefits of schooling for young workers. Contemporary criticism of the quality of black schooling overlooks the historical situation, which was much worse. All this reasserts an old-fashioned truth that is now out of vogue: The safest and surest route to permanent black economic mobility lies in additional education in a good school.

This central role of education raises our deepest real concerns about future prospects. The historical improvement in the quality of black schooling resulted largely from Southern black migration to the better schools of the North and from the overall rise in the quality of Southern schools. These trends having largely run their course; further improvement in black schooling depends critically on what takes place in urban black schools of the North. By concentrating on the merits of the safety net, all sides are running away from the real issue of school quality. Busing, the panacea of the 1970s, eventually confronted demographic realities and was rejected as a political solution by middle class whites. Blacks should take little solace from the renewed surge of interest in excellence in schools, which so far has been directed towards the white middle class. Where necessary, we can put patches in the safety net and remove its snares. But rest assured, until we deal with the problems in our nation's black schools, and until we restore the economic growth rates of the 1960s, further long-term reductions in black poverty will not materialize.

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I. INTRODUCTION

Forty years ago, Gunnar Myrdal published his masterwork on race relations in America, *An American Dilemma*. He began his chapter on the economic situation of blacks with the following summary:

> The economic situation of the Negroes in America is pathological. Except for a small minority enjoying upper or middle class status, the masses of American Negroes, in the rural South and in the segregated slum quarters in Southern cities, are destitute. They own little property; even their household goods are mostly inadequate and dilapidated. Their incomes are not only low but irregular. They thus live from day to day and have scant security for the future. Their entire culture and their individual interests and strivings are narrow.[1]

In the forty years since Myrdal's bleak assessment, this country has gone through a series of dramatic and far-reaching changes. The economy shifted from its traditional agricultural and manufacturing base to one that is service and technology oriented. As part of this shift, a major technological advance during the 1950s eliminated the system of black sharecropping in cotton, the primary economic activity of Southern blacks since the Civil War. As a result, large numbers of Southern rural blacks accelerated the movement to the inner cities of the North, eventually transforming the black population from predominately rural to largely urban. During the 1970s, the American economic structure suffered additional shocks. Because of increased international competition, the older industrialized sectors of the Northeast and North Central states, where blacks had made hard-won advances, were particularly hard hit.

Racial tensions have persisted throughout this forty year period. The civil rights movement achieved stunning judicial and legislative successes in the 1950s and 1960s, partly by appealing to the moral conscience of the nation. The Civil Rights Act of 1964 and subsequent executive orders prohibited employment discrimination on the basis of race. Today, many believe that the Civil Rights movement has lost its way as it has attempted to move beyond guaranteed civil and political rights to strive toward economic equity. Others charge that it has also lost the moral high ground because of repeated accusations that it has defended reverse discrimination. Controversy also besets affirmative action--the legislative program for employment anti-discrimination and enforcement. Many scholars now question whether affirmative action has even achieved its primary aim of improving wages and employment for minorities.

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[1] *The American Dilemma*, p. 205.

Postwar progress in race relations has been marred by race riots in American cities. In reaction to these riots, twenty years after Myrdal, a presidential commission issued the Kerner Report. Its portrait of black America was as bleak as that of Myrdal two decades earlier. Its pessimism about the economic status of blacks was compounded by its sense of hopelessness about the prospects for the future.

That pessimism and the pervasiveness of black poverty prodded government to devise an elaborate system of publicly financed assistance that in some way now touches a majority of blacks. The primary aim was to provide a safety net, protecting black families from the worst ravages of poverty; but critics have charged that the safety net evolved into a web, trapping blacks into a self-perpetuating culture of poverty.

We began this research project with a conviction that a reassessment of the long-term economic progress of American blacks is in order. Our reassessment is made possible by the recent 1980 Census micro data file as well as the newly released micro data files for the 1940 and 1950 Censuses.

We took up several issues. Our most basic concern was whether the economic lot of black men has improved significantly since Myrdal's day. We went beyond that issue by also examining whether economic progress has touched all parts of the black community. Finally, we dealt with the thorny problem of isolating the underlying causes of black economic progress. We sought to determine, for example, the extent to which education and its quality, migration to the North, and affirmative action have affected the economic progress of blacks.

The remainder of this report consists of seven sections. Section II describes major trends in black-white male wage ratios from 1940 to 1980 and identifies the distribution of wage gains among important subgroups in the black population. The remaining sections attempt to isolate some causes of these trends. Section III describes differential racial trends in schooling and the income benefits associated with that schooling. Section IV deals with the influence of two dimensions of geographic location: black migration from the South to the North and the increasing urbanization of the black population. Using regression-based accounting techniques, the extent to which education and place of residence "explain" trends in black-white wage ratios are summarized in Sec. V. Although not included in our statistical model, Sec. VI discusses the implications of three historical developments that many believe have played a significant role in recent black economic history: the invention of the mechanical cotton picker, the declining workforce participation rates of low-income blacks during the 1970s, and affirmative action. The final section summarizes our principal conclusions and also speculates about the likely future trends in the racial wage gap.

II. CLOSING THE RACIAL WAGE GAP

In this section, we summarize our principal conclusions regarding trends in black-white male incomes across the time period 1940 to 1980. Our analysis is based on the five decennial Censuses that were fielded during the first year of each of these decades. No attempt is made here at uncovering the root causes of any trends that we identify; that subject is taken up in Sec. III.

We divide our summary into three parts. The first describes trends between 1940 and 1980 in average weekly wages of black men relative to the wages of white men. The second part deals with distributional effects within the black population. To isolate these effects, black male wage gains are examined within age and education classes and at different points in the income distribution. The section concludes with our evaluation of whether black men were able to achieve career wage growth equal to that enjoyed by white men.

BLACK-WHITE MALE WAGES 1940-1980

On a national scale, Americans were first surveyed regarding their incomes as part of the 1940 decennial Census. Similar income questions were asked in each succeeding Census. The resulting data allow us to monitor trends over the last forty years in income disparities between black and white Americans. Table 1, for example, lists yearly incomes of men of both races. To adjust for the sevenfold inflation that has occurred since 1940[1], all incomes are expressed in constant 1984 dollars.

Since 1940, the American economy has enjoyed substantial economic growth, and inflation-adjusted incomes of all its citizens have risen dramatically. For example, real incomes of white men expanded two-and-one-half-fold between 1940 and 1980--and earnings growth was even more rapid among black men.

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[1] For convenience, we will refer throughout this report to the year the Census was taken, although all income statistics actually correspond to the calendar year preceding the Census.

Table 1

MEAN MALE INCOME BY RACE, 1940-1980

(In constant 1984 dollars)

Census Year	White Men	Black Men
1980	25,791	18,723
1970	25,666	16,527
1960	19,959	11,483
1950	14,332	7,912
1940	10,459	4,531

NOTE: Yearly incomes are weekly wages multiplied by an assumed work-year of 50 weeks.

Real incomes of black men have more than quadrupled over these forty years. In 1940, the typical black male employed for a full work-year, earned around $4,500; by 1980 he earned almost $19,000. The standard of living of today's black men has improved not only as measured against earlier black generations, but also relative to their white contemporaries. While incomes of white men were growing at a 2.2 percent rate throughout these forty years, black men were enjoying an income growth of 3.5 percent per year.

Table 2 depicts our estimates of black-white male weekly wage ratios from each of the decennial Census tapes.[2] The final row in this table contains relative wages aggregated across all experience classes. In addition, ratios are listed for 5-year intervals of years of work experience.[3]

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[2] Our numbers are ratios of arithmetic means of weekly wages. Income is defined as the sum of wages and salary and self-employment income. Weekly wages are calculated as income divided by weeks worked. Our sample consists of men 16 to 64 years old who are U.S. citizens and who did not live in group quarters. A number of additional sample restrictions were imposed. We excluded men (1) who worked less than 50 weeks in the previous year and are now attending school; (2) who worked 26 weeks or less in the previous year; (3) who were in the military; (4) who were self-employed or working without pay if they were not employed in agriculture; (5) whose weekly wages put them below the following values: 1940 = $1.50, 1950 = $3.25, 1960 = $6.25, 1970 = $10.00, 1980 = $19.80; (6) whose computed weekly wages put them above the following values: 1940 = $125, 1950 = $250, 1960 = $625, 1970 = $1250, 1980 = $1875; (7) who were in the open-ended, upper-income interval and who did work at least 40 weeks last year. In addition, in the 1950 Census only sample line people (who were asked income questions) were included.

Table 2 points to a very impressive rise in the relative economic status of black men over this forty-year time span. Over that span, black male wages increased 52 percent faster than those of whites. In 1940, the typical black male worker earned only 43 percent as much as his white counterpart. By 1980, the average black man in the labor force earned 73 percent as much as the typical white man.

The pace at which blacks were able to narrow the wage gap was far from uniform. The largest improvement occurred during the 1940s, a decade that witnessed a 24 percent expansion in the relative wages of black men.[4] These advances slowed considerably during the 1950s, but the pace picked up again in the years after 1960. During both the 1960s

Table 2

BLACK MALE WAGES AS A PERCENT OF WHITE MALE WAGES, 1940-1980

Years of Market Experience	Census Years				
	1940	1950	1960	1970	1980
1-5	46.7	61.8	60.2	75.1	84.2
6-10	47.5	61.0	59.1	70.1	76.6
11-15	44.4	58.3	59.4	66.2	73.5
16-20	44.4	56.6	58.4	62.8	71.2
21-25	42.3	54.1	57.6	62.7	67.8
26-30	41.7	53.2	56.2	60.6	66.9
31-35	40.2	50.3	53.8	60.0	66.5
36-40	39.8	46.9	55.9	60.3	68.5
All	43.3	55.2	57.5	64.4	72.6

SOURCE: Public Use Tapes of the decennial Censuses, 1940-1980.

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[3] Years of market experience is defined as current age minus assumed age at leaving school. The mapping from years of schooling completed and school leaving age is as follows: ed 0-11 = age 17, ed 12 = age 18, ed 13-15 = age 20, ed 16 or more = age 23.

[4] Throughout this report, the 1940 statistics include only wage income. In the 1940 Census, individuals were asked only the amount of their wage and salary incomes. In addition, we know whether they had $50 or more of other income, but not the amount. Those men without any

and 1970s, the rise in black wages was more than 10 percent higher than for whites.

Obviously, there has been impressive improvement in the relative economic status of blacks over the last forty years. It is largely an untold story that belies widely held views of black stagnation. However, one must remember that even in 1980, black male incomes still lagged well behind those of whites. We are left then with a dual message: Considerable progress has been made in narrowing the wage gap between the races--but race is still an important predictor of a man's income.

THE DISTRIBUTION OF BLACK WAGE GAINS

To this point, we have contrasted the average black and white worker. But such comparisons do not address the question of whether all segments of the black community shared in this black economic resurgence. Some scholars have argued that blacks have become increasingly divided into two economic worlds. The first includes members of the emerging black middle class, whose income gains have been real and substantial. The second group consists of the black underclass, increasingly left out and left behind. To address this issue, we now examine the extent of black economic progress across all parts of the economic spectrum.

While average white incomes are well in excess of those achieved by the average black, income distributions of the black and white populations have always overlapped. This overlap is illustrated in Fig. 1, which shows male income distributions by race in each Census year.[5] Table 3 summarizes the extent of this overlap. The left-hand side of

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wage income are not included in our 1940 sample. As a result, the 1940 sample is not strictly comparable to the other Census years. However, the trends we describe in the text are not affected to any large degree by this limitation. For example, if we similarly restrict the 1950 sample to men with positive wages and base the wage ratio only on wage income, our aggregate wage ratio in 1950 would be 59.0. This is even a larger wage improvement for blacks than we measure in Table 2.

[5] The original income plots were very noisy, particularly for the decades 1970 and 1980. Two techniques were used to smooth the plot lines: (1) The data were smoothed. The thousand-dollar income intervals were summed to 2-thousand-dollar intervals, divided by 2, and the

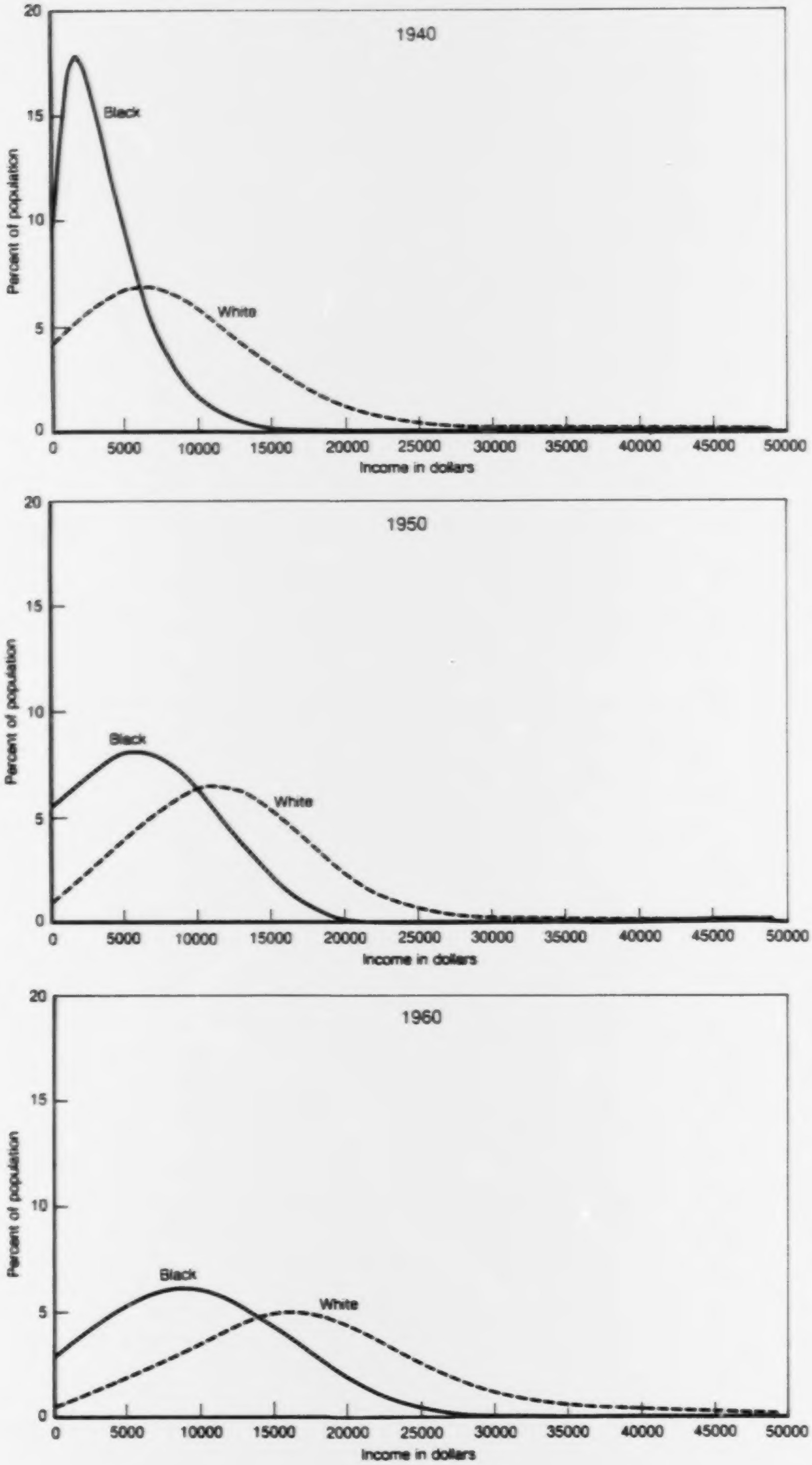
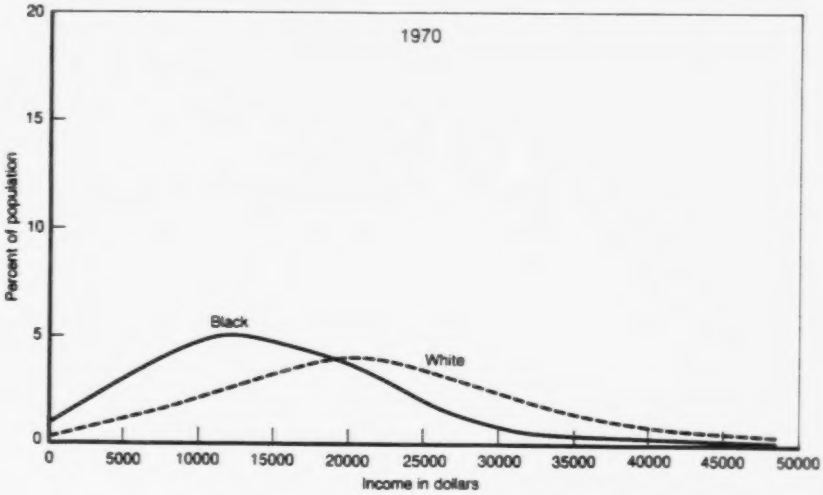


Fig. 1--Income in thousand dollar intervals



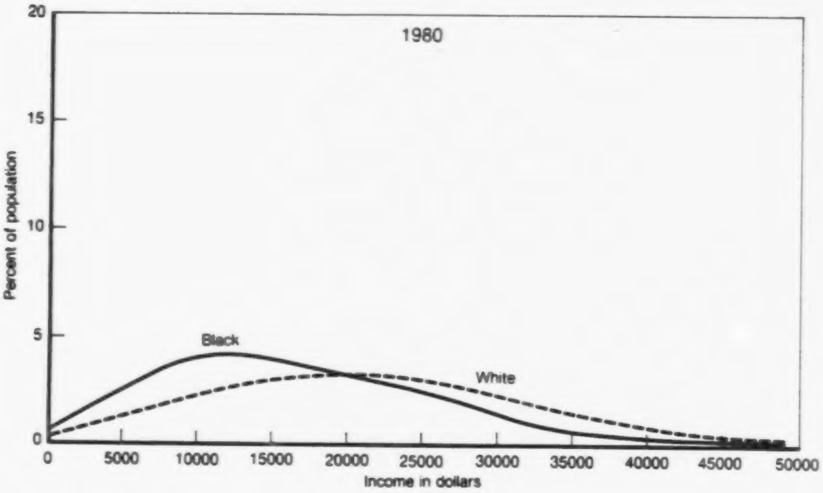


Fig. 1--continued

the table measures the proportion of black men with income exceeding three critical values in the white income distribution: the bottom quartile, the median, and the top quartile. To illustrate, 29 percent of black men had incomes larger than that of the average (median) white man in 1980. The right-hand side of Table 3 has a parallel set of numbers indicating the fraction of white men with incomes that exceed the same critical values within the black income distribution.

Table 3

EXTENT OF OVERLAP BETWEEN BLACK AND WHITE INCOME DISTRIBUTIONS

	% of Black Men Whose Income Exceeds White Income at the			% of White Men Whose Income Exceeds Black Income at the		
Year	Bottom Quarter	Median	Top Quarter	Bottom Quarter	Median	Top Quarter
1980	56	29	10	87	70	45
1970	45	22	5	90	78	57
1960	38	12	1	92	81	66
1950	36	12	2	92	82	66
1940	31	8	1	95	84	70

The overlap between the two income distributions was small in 1940. If income is the measuring rod, black and white men were indeed divided into two separate and unequal societies in 1940. In that year, only one in twelve black men earned more than the average white, and the upper segment of the income distribution resembled an exclusive white club. For black men, the chances were one in a hundred of being admitted to that club, the membership requirement being an income equivalent to one

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quotient assigned to each of the original 1-thousand-dollar intervals. (An exception was made for the 1940 black intervals $0-1000 and $1000-2000. The original thousand-dollar interpolations were retained to preserve the integrity of the distribution.) (2) The plot lines were smoothed. Spline interpolation (pp. 15-16 in SAS/GRAPH USER'S MANUAL, 1981 edition) was used with PROC GPLOT. Symbol I=SM50 was used for all plot lines except the 1940 black income line, which used SM25 interpolation to preserve the character of the line.

in the top 25 percent of the white population. The view from the other side was equally stark: 70 percent of white men earned more than the top 25 percent of blacks.

While by no means identical, these two income distributions have converged sharply across these forty years. By 1980, 29 percent of working black men earned more than the median white. Nowhere were these changes more dramatic than in the circles of the economic elite. Even within the upper parts of the income distribution, black men are now more commonplace. Fully 10 percent of black men now rank higher than the white worker whose income puts him among the wealthiest 25 percent. This black penetration into the economic elite has been accomplished largely during the last twenty years. Between 1960 and 1980, the probability that a black man's income would fall in the top 25 percent white income bracket increased tenfold.

The expanding size of the black middle class[6] is illustrated in Table 4. In this table, each race is divided into three income classes.

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[6] From the first attempts to measure poverty, debate has continued on whether poverty is an absolute or relative concept. The official government statistic is based on an absolute concept, so that the income necessary to escape poverty is adjusted upwards over time only by the rate of inflation. At the other extreme, critics of the official statistics contend that poverty is a relative concept, so that poverty should be defined relative to the average income in that year. Using this concept, the bottom quarter of the income distribution would always be classified as poor.

If the absolute income standard had been set 100 years ago, virtually no one would be poor today. Similarly, the relative concept by defining as poor the bottom quarter of Ugandans and Americans, does not allow economic growth to reduce poverty at all. To count the poverty population, we have adopted a middle ground using elements of both absolute and relative definitions. It turns out that our definition also corresponds more closely to people's notions of what poverty means. When asked in survey over time about the income required not to be poor, the poverty threshold has increased fifty cents by every dollar increase in real income. Based on that observation, our definition of poverty increases the poverty threshold income by half a percent for every one percent growth in real income.

More technically, we originally separated the population into the three groups in Table 4 by defining the 1940 middle class as those whose income lies between 2/3 and 4/3 of the median white male income. The lower income threshold for entering the middle class is adjusted upward by half the rate of white real income growth. Our definition of the elite is asymmetric. To be a member of the elite, one must have a income of 4/3 of the white median in that year.

The middle column for black men lists the percentages of blacks whose incomes equate them with the white middle class. The columns to the left and right list the percentages of blacks with incomes below (i.e., the poor) and above (i.e., the elite) white middle-class income. This table simultaneously illustrates the persistence of black poverty, the growth of the black middle class, and more recently the emergence of a nonnegligible black upper class.

In 1940, three quarters of all blacks were below the white middle class. By any reasonable definition, the overwhelming majority were poor. Three quarters were destitute, with little hope that their lot or even that of their children would soon improve. The small black middle class in 1940 comprised only one in five black men. At the other extreme, the economic elite resembled an exclusive white club. In 1980, fully 20 percent of black working men still languished in the poor underclass, a reminder (if any of us needed it) that many blacks remain left out and left behind. But placed in historical perspective, such figures still represent enormous progress toward eradicating black poverty.

However, the real story of the last 40 years has been the emergence of the black middle class, whose income gains have been real and substantial. The growth in the size of the black middle class has been spectacular that as a group it outnumbers the black poor. By 1980, more

Table 4

MEN IN THE MIDDLE CLASS

	White Men			Black Men		
Year	Below	Middle Class	Above	Below	Middle Class	Above
1980	11	60	29	20	68	12
1970	9	66	25	24	71	5
1960	12	64	24	39	59	2
1950	18	49	23	48	50	2
1940	30	40	30	76	22	2

than two-thirds (56 percent) of blacks had incomes that met the criteria for middle class.

Nowhere are those changes more dramatic than when we focus on the contemporary economic elite. For the first time in American history, a sizable number of black men are economically better off than white middle-class America. During the last twenty years alone, the odds of a black man penetrating the ranks of the economic elite increased tenfold.

Table 5 summarizes the extent to which blacks made economic progress at different segments of the complete income distribution. To produce this table, incomes of black men at each percentile of the black income distribution were calculated relative to the incomes of white men at the same percentile of the white income distribution. Virtually all parts of the black population, no matter what their original position in the income distribution, participated in the black economic resurgence over this forty-year period. The principal exception relates to blacks within the bottom 10 percent. While even those black men gained relative to the lowest-income whites, the size of the wage improvement is much smaller.

Another way of identifying those blacks who gained more than others is to examine wage changes within age or schooling groups. To facilitate the age comparison, Table 6 lists percentage rates of growth in black-white weekly wage ratios by experience groups between

Table 5

PERCENTAGE INCREASE IN BLACK ANNUAL INCOME COMPARED WITH WHITES AT SELECTED PERCENTILES: 1940-1980

Percentile	Percent Increase	Percentile	Percent Increase
2	4.8	60	54.9
4	8.4	70	57.4
6	30.7	80	49.0
8	36.9	90	46.2
10	48.1	92	50.6
20	48.2	94	48.1
30	50.2	96	51.6
40	45.2	98	54.7
50	45.5		

Table 6

PERCENTAGE GROWTH IN BLACK-WHITE MALE RATIOS OF WEEKLY WAGES

Years of Work Experience	Growth Between: 50-40	60-50	70-60	80-70	80-40
1-5	28.1	-2.7	22.1	11.5	58.9
6-10	25.1	-3.2	17.1	8.8	47.8
11-15	27.1	1.9	10.9	10.4	50.3
16-20	24.4	3.1	7.3	12.5	47.3
21-25	24.6	6.3	8.6	7.7	47.2
26-30	24.2	5.6	7.5	9.9	47.2
31-35	22.5	6.6	10.8	10.4	50.3
36-40	16.4	17.5	7.5	12.7	54.2
All experience classes	24.2	4.1	11.3	12.0	51.6

successive Censuses. Table 7 presents the percentage growth in wage ratios by education level.[7]

Over the full forty-year period, younger blacks gained more relative to whites than did experienced black workers. However, with the exception of those in the first five years of work, post-1940 relative black wage gains were fairly uniform across experience cells; but during the last twenty years, relative black wage gains were largest among younger workers. As a consequence, the cross-sectional decline with experience in black relative wages in Table 2 became steeper in 1980 than it was in 1960. This tilt in favor of younger blacks is an optimistic harbinger of the future. It implies that the pace at which blacks were able to narrow the racial wage gap accelerated over time.

While the overall trend favored young black workers, between-decade changes were very erratic. The 1940s established the tendency of larger relative wage gains among younger black workers. The principal anomaly occurred during the 1950s, when younger blacks suffered economic setbacks compared with young white workers. However, these losses were more than recouped in the next decade. During the 1960s, the relative wage increases achieved by younger blacks were four times the size of those of most experienced black workers.[8] The last decade is probably best described as one of relatively uniform black wage gains across experience classes.

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[7] The percentage growth rates by age are derived from the ratios contained in table 2. The growth rates by education class are based on the wage ratios in Table 9 in Sec. III below.

We examine the education dimension of the distribution of racial wage gains in Table 7. Black male wages rose relative to whites between 1940 and 1980 at every schooling level. Table 7 indicates that the distribution of wage gains is slightly U-shaped, with the least and best educated blacks receiving the largest benefits.

Among those with eight or more years of schooling, there exists a distinct pro-skill bias in the rate of black wage improvement. For example, wages of black college graduates grew 45 percent faster than those of whites between 1940 and 1980; in contrast, black wages grew a third more rapidly than whites among men with terminal high school diplomas. This pro-skill bias was especially pronounced between 1950-1970. During these twenty years, the relative wage gains of black college graduates were four times larger than those achieved by black high school graduates.

Table 7

PERCENTAGE GROWTH IN BLACK-WHITE WEEKLY WAGE RATIOS BY EDUCATION

	Years of Schooling						
Decade	0-4	5-7	8-11	12	13-15	16+	All
1940-1980	35.5	36.5	30.8	32.8	45.0	44.8	51.6
1940-1950	5.0	14.4	16.6	22.3	14.4	10.8	24.2
1950-1960	12.9	5.5	-2.2	-6.8	6.9	10.4	4.1
1960-1970	2.5	8.5	7.0	8.7	17.6	19.3	11.3
1970-1980	15.1	8.1	7.4	8.6	6.2	4.3	12.0

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[8] We analyzed the 1960-1970 decade in depth in Smith and Welch (1977).

TRACKING BLACK-WHITE CAREERS

The foregoing evidence confirms that black men made larger wage gains than white men during the last forty years. Although accepting this conclusion, some observers fear that much of the gain may eventually evaporate as competition between the races intensifies over job careers. Such fears are misplaced.

One pattern that characterizes all five Census years in Table 2 is that black-white wage ratios decline with years of work experience. For example, in 1950, among men who had spent 36 to 40 years in the labor market, black wages were 47 percent of white. In the same year, among men in their first five years of work experience, black wages were 62 percent of white. For a long time, the cross-sectional decline in wage ratios with experience, as in Table 2, was the principal statistical evidence that led to widespread scientific and popular acceptance of a particular theory of labor market discrimination. According to this theory, an important mechanism of discrimination was that blacks were systematically denied access to jobs with more favorable future prospects or larger wage growth.

Such cross-sectional data, however, do not speak directly to life-cycle realities for any group of workers. Men who have more labor market experience in any calendar year belong to older generations. The 47 percent ratio for the 36 to 40 experience interval, for example, may be lower than the 62 percent ratio for the first five years of experience in 1950 because the more experienced workers were born 35 years earlier. Relative to their white contemporaries, these older blacks had less schooling and attended poorer quality schools than their black successors would 35 years later.

Table 8 isolates the actual labor market experiences of labor market cohorts by rearranging the items in Table 2. This rearrangement involved centering the original data by the initial year of labor market entry. For example, men in their first five years of work in 1940 first entered the labor market, on average, in 1938. Among these men, blacks earned 46.7 percent as much as whites. These same men by 1950 had spent 10-15 years in the labor market; blacks in this cohort now earned 58.3 percent as much as whites. By reading across any row in Table 8, we can follow the actual life-cycle path of relative wages of the labor market cohorts indexed in the first column.

The message of Table 8 is unambiguous. In contrast to the cross-sectional implication of deterioration in the relative economic status of blacks across labor market careers, the reality is that, if anything, black men actually improved their situation relative to whites. Black men narrowed the gap between their incomes and those of their white contempories as their careers evolved in virtually every instance depicted in Table 8. The cross-sectional decline in each Census year that characterized Table 2 is not the result of any increasing life-cycle differentiation by race. Instead, improvement in the quality of black workers relative to white workers across successive birth cohorts accounts for the cross-sectional decline.[9]

Table 8

BLACK MALE WAGES AS A PERCENT OF WHITE MALES BY LABOR MARKET COHORT

Median Year of Initial Labor Market Work	Census Year 1940	1950	1960	1970	1980
1978					84.2
1973					76.6
1968				75.1	73.5
1963				70.1	71.2
1958			60.2	66.2	67.8
1953			59.1	62.8	66.9
1948		61.8	59.4	62.7	66.5
1943		60.0	58.4	60.6	68.5
1938	46.7	58.3	57.6	60.0	
1933	47.5	56.6	56.2	60.3	
1928	44.4	54.1	53.8		
1923	44.4	53.2	55.9		
1918	42.3	50.3			
1913	41.7	46.9			
1908	40.2				
1903	39.8				
All	43.3	55.2	57.5	64.4	72.6

SOURCE: Public Use Tapes of the decennial censuses 1940-1980.

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[9] This more rapid cohort improvement for blacks has been called "the vintage hypothesis" in the literature. It is an issue that we

CONCLUSION

Several salient trends in the size of the racial wage gap between 1940 and 1980 were identified in this section. Most important, this forty-year record clearly points to a significant and quantitatively large improvement in the relative economic status of black men. In 1940, the typical black male earned around $4,500 (in 1984 dollars); a similarly employed black male earned almost $19,000 by 1980. Between 1940 and 1980, black male wages increased 52 percent faster than white. The typical black male worker in 1940 earned only 43 percent as much as his white counterpart; by 1980, the figure was 73 percent.

The extent of the improvement in the relative economic status of blacks over the last forty years is obviously impressive. This improvement is largely an untold story belying the widely held view that the relative economic position of blacks in America has been stagnant. However, one must remember that even in 1980, black male incomes still significantly lagged behind those of whites.

As part of our project, we also examined the distribution of these wage gains within the black male population. Our concern was that these average gains were heavily skewed, with some blacks receiving the bulk of the benefits, leaving large numbers of black men behind. The evidence does not support this view. Whether we distinguish among low- or middle-income blacks, between the old and the young, or the more and less educated, the incomes of black men have risen relative to comparable whites. The only group of working black males whose relative wage gains could accurately be characterized as small were those within the bottom 10 percent of the black income distribution. While all blacks participated in this economic progress, some groups did gain more than others. For example, younger blacks gained more relative to whites than did more experienced black workers. And when we separated our samples by education class, we found that college-educated blacks enjoyed the largest wage improvement.

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addressed in a number of earlier papers. See Welch (1974), Smith and Welch (1977), and Smith (1984).

Our study of income distributions yielded a number of important findings. If income is the measuring rod, black and white men were indeed divided into two separate and unequal societies in 1940. In that year, only one in twelve black men earned incomes larger than that of the average white. While by no means identical, these two income distributions have converged sharply across these forty years. By 1980, 29 percent of working black men had incomes above that of the median white.

Our research simultaneously illustrates the persistence of black poverty, the growth of the black middle class, and, more recently, the emergence of a nonnegligible black upper class. In 1940, three-quarters of black men were destitute, with little hope that their lot or even that of their children would soon improve. The black middle class in 1940 was correspondingly small, counting among its members only one in five black men. At the other extreme, the economic elite resembled an exclusive white club.

The changes over the last forty years were dramatic. Fully 20 percent of black working men in 1980 were still part of the poor black underclass, a reminder that many blacks remained left out and left behind. But placed in historical perspective, such figures still represent enormous progress toward eradicating black poverty.

However, the real story of the last forty years has been the emergence of the black middle class, whose income gains have been real and substantial. The growth in the size of the black middle class was so spectacular that as a group it outnumbers the black poor. Finally, for the first time in American history, a sizable number of black men are economically better off than white middle-class America. During the last twenty years alone, the odds of a black man penetrating the ranks of the economic elite increased tenfold.

Finally, we investigated the notion that the wage gains of black men would disappear over the work career. Some observers have expressed concern that significant parts of these wage gains would eventually be lost as competition between the races intensifies over job careers. However, the reality is that, if anything, black men actually improved their status relative to whites as their respective careers unfolded.

Among every cohort of workers between 1940 and 1980, black men narrowed the gap between their incomes and those of their white contemporaries as their careers evolved.

III. CAUSES OF THE CONVERGENCE IN RACIAL WAGE RATIOS: EDUCATION

This section and those that follow examine some reasons for the substantial narrowing of the racial wage gap. We first take up education, whose role in promoting black economic mobility remains in dispute. The historical importance of black schooling is discounted by many scholars. They point out that blacks' long-term advances in education throughout the twentieth century did not produce any closing of the racial income gap, at least until the mid-1960s. They also point to a series of studies showing that blacks derive far less income benefit from their education than do whites. In this section, we present new evidence relating to this issue. As part of our evidence, we highlight differential racial trends in years of schooling completed and the income benefits derived from that schooling.

Throughout these remaining sections, our work is based on a statistical analysis of male weekly wages[1] in the five micro data files from the 1940 to the 1980 Censuses. Regressions were estimated separately within eight five-year experience intervals, ranging between 1 to 5 and 36 to 40 years of work experience. Separate analyses were conducted for each race and within each of the five decennial Censuses. The dependent variable in each specification was the logarithm of the weekly wage.[2] Explanatory variables fall into five groups: (1) years of schooling; (2) dummy variables indicating residence in the South; (3) SMSAs;[3] (4) the central cities of these SMSAs, and (5) a set of single-year experience dummies within each experience interval. Our full regression estimates and associated standard errors are presented in Tables A.1 and A.2 of the appendix. We summarize in the text only the implications of these statistical models for trends in black-white wage ratios.

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[1] Weekly wages were calculated as income divided by weeks worked. Weeks worked were coded continuously from one to 52 weeks in the 1940, 1950, and 1980 Census. In the 1960 and 1970 Census, however, weeks worked were coded into broad intervals. To maintain comparability, the same intervals in all Census years were used. The following within-interval means, as calculated from the 1980 Census, were assigned: 1-13 = 6.50; 14-26 = 21.73; 27-39 = 33.08; 40-47 = 42.67; 48-49 = 48.29; 50-52 = 51.82. We checked this assumption by rerunning the analysis using continuous weeks worked. The differences were trivial.

[2] Each Census contained an open-ended upper income interval. For each Census year and each open-ended income category (indicated in parenthesis next to the Census year), the following values were assigned: 1940 (5,000) = 8,900; 1950 (10,000) = 22,500; 1960 (25,000) = 42,500; 1970 (50,000) = 80,000; 1980 (75,000) = 115,000. These top code values were calculated assuming that the upper part of the income distribution followed an exponential distribution.

THE ROLE OF EDUCATION

Controversy has always surrounded the prominence that should be assigned to black schools in shaping the economic history of blacks. Zeman's (1955) initial study of the 1940 Census suggested that white men received three times as much income as black men for each additional year of schooling.[4] Essentially, Zeman's work implied that giving blacks the same amount of education as whites would do little to alter racial income disparities. In addition, the initial micro-level studies based on the 1960 Census by Hanoch (1965) and Thurow (1969) did little to amend this view. Their work painted a consistent picture of low returns to schooling for blacks as well as a sharp deterioration in relative black economic potential over job careers.

The low economic benefits from schooling estimated for blacks in the early analysis of the 1940 and 1960 Census led many scholars to conclude that the educational route to economic mobility was apparently closed for blacks. This pessimism was deepened by studies, especially those of Jencks and his coauthors (1972) claiming that attributes of schools matter little in future economic success. As a result, improving the quality of black schools was similarly viewed as having marginal payoffs in improving the economic status of blacks.

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[3] The definition of SMSAs has changed periodically over the 40 years. In the 1940 and 1950 Censuses, the Standard Metropolitan Area (SMA) concept was used. Starting in 1960, the SMSA definition has been employed. Some of these changes simply reflect the increasing urbanization of the American population. Others, however, are more analytically troublesome. For reasons of confidentiality, SMSAs were not reported in a number of low-population states in 1960. To maintain comparability, we ignored a similar restriction on the other Census years. Therefore, SMSAs in the following states were not included in our definition: Arizona, Colorado, Delaware, Hawaii, Idaho, Maine, Mississippi, North Dakota, Rhode Island, South Dakota, and Utah. A similar restriction applies for the Central City variable.

[4] Zeman's research was based on tabulated aggregated data published in reports of the Census Bureau.

The bulk of the evidence we have accumulated in our research strongly challenges this view. The presentation of our results in this section is divided into three parts. Our evidence starts with a description of black-white wage ratios within schooling groups, as they are revealed in the five Census files. Next, secular trends by race in education levels completed are described. The section concludes with our interpretation of estimated schooling coefficients across the 1940 to 1980 time period.

BLACK-WHITE WAGES BY EDUCATION

Our treatment begins with a brief description of some prominent patterns that characterize black-white wage ratios within education classes. Table 9 lists black-white male weekly wage ratios within education classes. These weekly wage ratios are averages within 10-year experience intervals. For example, the initial entry, 63.0 for the 0-7 schooling class, represents men in their first 10 years of work in the 1940 Census. Among these men, who on average first worked in 1935, blacks earned 63 percent as much as whites. These ratios are arranged by year of initial labor market entry in a manner similar to Table 2 to facilitate career tracking of work cohorts.

Table 9 reveals large racial wage disparities within education groups. Black men earned 50 to 55 percent as much as comparably educated whites in 1940. While these racial wage differences narrowed substantially over time, they remained at levels of 70 to 80 percent in 1980. These within-education wage differentials should be contrasted to the aggregate ratios of 43 percent in 1940 and 73 percent in 1980 (see Table 2). That contrast informs us that education will play a significant role in explaining the racial wage gap. However, it also warns us that simply equalizing the number of years of schooling alone would leave a sizeable racial wage gap.

Controlling for the numbers of years of work experience, black-white income ratios in the earlier Censuses decline with years of schooling. This decline is particularly sharp in the high school and college groups and is accentuated among more experienced workers. To illustrate, consider men with 30 to 40 years of work experience in 1940. Black-white wage ratios average about 50 percent for those with 11 years of schooling or less. In contrast, black wages are little more than a third of white wages among high school and college graduates.

Such figures indicate that the early Census files confirm the belief that black men received far less income benefit from schooling than did white men. However, also note that this pattern of falling black-white wage ratios by education has been eliminated by the latter Censuses among workers in their first 20 years in the workforce. This pro-skill bias in black economic gains is documented by the more rapid wage improvement among college graduates between 1940 and 1980.

The cross-sectional decline with work experience that characterized aggregate black-white wage ratios (in Table 2) also exists within education groups, especially in the earlier Censuses. The misleading implications of this decline can be illustrated with an example. Consider men with high school diplomas who were in their first 10 years of work in 1940. Among such men, blacks earned 70 percent as much as whites. If these men extropolated their future based on the observed 1940 cross-section, they would anticipate that by the time they had been in the labor force 30 to 40 years, the blacks among them would only earn 36 percent as much as whites. If true, this would indeed suggest severe wage deterioration for blacks over their careers.

However, by tracking changes within cohorts in Table 9, the reality turns out to be quite different. The actual wage ratio of high school graduates in the 30-to-40-year experience interval was 69 percent, little different from the initial wage ratio that prevailed in 1940. Among men with 12 or less years of schooling, black male wage growth (at a minimum)[5] kept up with comparably educated whites as their careers proceeded.[6]

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[5] After 20 years on the job, black-white wage ratios of these less educated men jumped sharply in the 1980 Census. The size of this jump and its timing late in the life-cycle suggests that it was not the result of any normal career progression. We return to this issue below.

[6] The principal exceptions were high school graduates with their first 10 years of experience in 1950.

Table 9

BLACK-WHITE WEEKLY WAGE RATIOS BY EDUCATION

Median Year of First Labor Market Entry	Census Year				
	1940	1950	1960	1970	1980
Education = 0-7 years					
1975					83.9
1965				73.5	85.1
1955			66.4	72.1	79.7
1945		66.7	68.2	72.6	80.4
1935	63.0	65.4	68.4	74.5	
1925	59.3	64.9	67.5		
1915	56.1	59.1			
1905	53.0				
All	54.5	63.6	67.0	73.9	82.5
Education = 8-11 years					
1975					87.1
1965				83.9	78.2
1955			70.9	73.5	76.9
1945		75.6	71.0	73.3	78.9
1935	68.2	72.4	71.3	73.2	
1925	61.1	74.2	68.3		
1915	58.5	63.6			
1905	54.8				
All	59.7	70.9	70.1	78.8	74.8
Education = 12 years					
1975					83.0
1965				80.9	80.2
1955			72.8	75.0	78.2
1945		82.3	68.8	72.4	77.8
1935	70.4	73.8	68.2	68.8	
1925	58.8	65.1	61.7		
1915	48.3	53.2			
1905	36.2				
All	56.5	66.5	66.2	72.2	78.8

Table 9--continued

Median Year of First Labor Market Entry	Census Year				
	1940	1950	1960	1970	1980
		Education = 13-15 years			
1975					89.1
1965				91.2	81.0
1955			75.0	76.8	75.3
1945		84.2	66.4	67.6	73.5
1935	66.5	56.4	58.4	61.8	
1925	51.2	49.5	50.0		
1915	37.4	46.2			
1905	42.0				
All	47.4	55.8	62.9	75.0	79.8
		Education = 16+ years			
1975					87.8
1965				84.7	80.8
1955			69.4	74.7	70.9
1945		68.4	62.1	67.6	65.0
1935	54.8	59.5	52.7	58.0	
1925	45.4	41.0	47.5		
1915	39.4	37.4			
1905	35.9				
All	48.7	50.4	60.2	73.0	76.2

During the time period we are analyzing, most blacks did not go beyond high school. Therefore, this pattern of blacks maintaining their relative position across careers characterizes the typical black male as well. Among the more educated, the situation is less easy to summarize. Within some work cohorts, whites appear to have the advantage while blacks have an edge in others. In either case, the cross-sectional decline in black-white weekly wages is far weaker than the actual career reality. Taken as a whole, the evidence suggests that black wages did rise as rapidly as did white wages over careers, even among these more educated workers.

TRENDS IN EDUCATIONAL DIFFERENCES

The number of grades completed is a crude summary index of the amount of learning and skill acquired in American classrooms. But if education plays a significant role in closing the racial wage gap, the most elementary evidence must rely on monitoring the extent to which black educational accomplishments are catching up to those of whites. Our monitoring is contained in Table 10, which lists mean years of schooling completed, as derived from each of the Census files.

Not surprisingly, the education levels of each new generation of workers increased over the last forty years. While this trend exists for men of both races, the final row in Table 11 demonstrates that they were much sharper for black men. Educational differences still persist between the races, but they are far less today than at any time in our history. In 1980, a typical black man had a year-and-a-half less schooling than the average white male worker. Since 1940, forty percent of the education gap between the races had been eliminated.

Table 10

AVERAGE EDUCATION LEVELS BY RACE

Race and Age Group	Census Year 1940	1950	1960	1970	1980
White Men					
Ages 26-35	9.89	10.77	11.49	12.36	13.56
Ages 36-45	9.15	9.98	10.93	11.78	13.02
Ages 46-55	8.54	9.20	9.96	11.15	12.20
Ages 56-64	8.07	8.47	9.06	10.16	11.45
Ages 16-64	9.38	9.99	10.65	11.51	12.47
Black Men					
Ages 26-35	5.97	7.60	9.01	10.54	12.15
Ages 36-45	5.40	6.41	7.84	9.49	11.26
Ages 46-55	4.84	5.54	6.51	8.19	9.85
Ages 56-64	4.36	4.92	5.51	6.81	8.48
Ages 16-64	4.70	6.83	8.00	9.47	10.96

A simple way of depicting how these changes transformed the educational make-up of the workforce is to examine racial disparities in the schooling of male workers at twenty year intervals. Begin this examination in 1980, when the majority of all workers of both races were high school graduates. Three-quarters of younger male workers (those aged 26-35) of both races were high school graduates in 1980, but blacks lagged more than a year behind whites. For the first time in our history, a sizable number of young black men were college graduates. One in nine blacks 26-35 completed college, compared to three in ten young white men.

It is easy to forget how little schooling the average black male worker had, even as late as 1960, and how large black-white education differences were in that year. Across the full age distribution, white men had a 2.7 year educational advantage over black men in 1960. If a high school graduate typified the 1980 black male worker, our average 1960 black worker competed in the labor market with only his elementary diploma. Fully 80 percent of the 1960 black male workforce had not finished high school, and less than 3 percent of all black male workers had college degrees.[7] The average level of schooling of young black workers in 1960 was about 9 years; the typical older black worker had

Table 11

DIFFERENCES IN AVERAGE EDUCATION LEVELS
OF WHITES AND BLACKS, IN YEARS

	Census Year				
Age Group	1940	1950	1960	1970	1980
Ages 26-35	3.92	3.17	2.48	1.82	1.41
Ages 36-45	3.75	3.57	3.09	2.29	1.76
Ages 46-55	3.70	3.66	3.45	2.96	2.35
Ages 56-64	3.71	3.55	3.55	3.35	2.97
Ages 16-64	3.68	3.16	2.65	2.04	1.51

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[7] The distribution of men by individual years of schooling completed are contained in Appendix Table A.7.

Table 12

EDUCATION BY BIRTH COHORTS

Year of Birth	Years of Education	
	White Males	Black Males
1956-60	12.54	11.83
51-55	13.31	12.18
46-50	13.37	11.75
41-45	13.34	11.47
36-40	12.66	10.68
31-35	12.52	10.17
26-30	12.05	9.24
21-25	11.97	8.77
16-20	11.36	7.80
11-15	10.90	7.16
06-10	10.46	6.58
01-05	9.46	5.80
1896-1900	8.97	5.56
91-95	8.40	5.50
86-90	7.89	4.65
81-85	7.62	4.33
76-80	7.40	4.01
71-75	7.24	3.72
66-70	7.10	3.39
Pre-1865	6.81	2.62

not even completed the sixth grade. In contrast, the majority of white workers in 1960 still had completed high school and one in ten were college graduates.

As dismal as these 1960 numbers seem, they represent substantial improvement over those for 1940. In that year, 80 percent of the 1940 black male workforce had only elementary schooling and 40 percent had less than 5 years of education. Only one in fourteen black men in 1940 had graduated from high school and one in a hundred received a college degree. Matters were little better among younger blacks in that year. Among black men 26 to 35 years old, four out of five failed to go beyond elementary school and the mean schooling level was less than six years.

While the 1940 education credentials of white workers were far less than those of today's workers, white men had a decidedly larger educational advantage over their black contemporaries. In that year, the average white worker completed 9.4 grades, 3.7 more than their black rivals. The majority of white men had at least some high school training and one in four were high school graduates.

An important pattern emerges when we examine trends across age groups within each Census year in table 11. Since 1960, the smallest racial difference occurs among the younger workers. However, this pattern disappears among older workers in 1950 and is nonexistent in the 1940 data. This age relation contains important clues about the reasons why the rate by which blacks were able to catch up in education has accelerated. The reasons become apparent when we track generational changes in schooling. Table 12 lists average education levels by race for all five-year birth cohorts born after the end of the Civil War.[8] Differential racial trends are most easily monitored in Table 13,[9] which lists differences in years of schooling completed by birth cohorts.

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[8] As is well known, birth cohort tracking across Census years shows unbelievably large increases (beyond any reasonable age of school attendance) in average schooling levels. This education inflation is often attributed to exaggeration of schooling accomplishments as education norms in society rise.

[9] The table is a revision of a series presented in Smith (1984). The differences between this revised and the original series result (1) from the use of the micro data files for the 1940 and 1950 Census instead of the published Census data used earlier, and (2) the use of the 1980 micro Census file in place of the 1979 CPS. Most of the difference between the original and this revised series stems from (2). However, the broad trends described in Smith (1984) remain intact. In particular, the division of the historical record into three parts as described in the text is unaltered. As was the case with the earlier series, each cross-section provides an estimate of mean schooling levels by five-year birth cohorts. By linking and blending these five cross-sections, one can span the birth cohorts listed in Table 10.

Table 13

DIFFERENCES IN YEARS OF SCHOOLING COMPLETED
BY BIRTH COHORTS

Year of Birth	Difference
1956-60	0.71
51-55	1.13
46-50	1.61
41-45	1.86
36-40	1.98
31-35	2.35
26-30	2.80
21-25	3.20
16-20	3.55
11-15	3.74
06-10	3.88
01-05	3.67
1896-1900	3.41
91-95	3.40
86-90	3.25
81-85	3.29
76-80	3.40
71-75	3.52
66-70	3.71
Pre-1865	4.18

Following Smith (1984), long-run trends in racial differences in years of schooling completed can be divided into three distinct subperiods.[10] Among men born in the twentieth century, (after 1906), there is substantial racial convergence in years of schooling completed. For example, blacks had a 3.88 year deficit in mean education levels among men born between 1906 and 1910. However, among men born fifty years later (1956-60), the black disadvantage had declined to seven-tenths of a year. Men born in this century dominate the workforce in the 1960-1980 Censuses. As a result, this narrowing of racial differences for twentieth century birth cohorts explains the narrowing of education differences across age groups in the 1960, 1970, and 1980 Census data (see Table 11).

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[10] These long-term trends in education were originally analyzed in Smith (1984).

In sharp contrast, the birth cohort years 1886-1910 represent a period of retrogression. During these years, the deficit in black education actually expanded, rising from 3.25 years (1886-1890) to 3.88 years (1906-1910).[11] Workers born during these years constitute the older male work force in 1950 and much of the 1940 work force. This period of retrogression, (1886-1910), explains the elimination of the age relation in the 1940 and 1950 Census.

The final group of workers are those born during the first twenty years after the Civil War. Table 13 shows that, during those years, we return to the more familiar twentieth century pattern of a narrowing of the racial education gap. However, for the most part these generations are not part of our analysis of the 1940-1980 Census data (since they have already retired from the labor force). For our research, the critical division is between the years of modern convergence (1906-present) and the years of retrogression (1886-1905).

ESTIMATED SCHOOLING COEFFICIENTS

To complete our historical survey, we need to know what schooling buys in terms of enhanced labor market earnings. We obtained estimates for each race of the proportionate increase in weekly wages associated with an additional year of schooling. Given our regression specification, separate estimates exist for each of our experience intervals from all five Census tapes. These estimated coefficients reveal patterns that are informative about the role of schooling in changing black-white wage ratios.

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[11] The reasons for this retrogression are explained in Smith (1984).

Tables 14 and 15 present our estimated schooling coefficients from each of the Census tapes arranged by birth cohorts. Perhaps the most basic conclusion is that the income benefits that blacks received from schooling were historically quite low. In 1940, attending school for another year raised black male wages by less than 4 percent--half the amount for whites. Matters had improved little by 1950. Among older black workers, each year of schooling increased wages by less than 3 percent.

If we use white men to monitor secular trends, considerable fluctuation exists across the decades in our estimated schooling coefficients. The amplitude of these fluctuations is much larger among less experienced workers, indicating that younger workers more keenly bear the brunt of aggregate market forces impacting on the price of skill. Schooling coefficients fell sharply between 1940 and 1950,

Table 14

WHITE SCHOOLING COEFFICIENTS BY BIRTH COHORTS

Median Year of Work Cohorts	Experience Interval (Years)							
	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40
1902								8.10
1907							7.93	
1912						8.52		5.98
1917					8.52		5.83	
1922				8.69		6.17		6.16
1927			8.76		6.08		6.62	
1932		8.93		6.05		6.64		6.36
1937	9.78		6.24		6.64		6.66	
1942		5.51		6.55		6.74		5.48
1947	6.09		6.65		7.04		6.19	
1952		6.94		7.38		6.45		
1957	8.93		7.14		6.92			
1962		7.44		6.94				
1967	9.99		6.78					
1972		6.13						
1977	8.53							

SOURCE: Tables A1, A2.

increased gradually from 1950 to 1970--and then declined once again between 1970 to 1980. While differing in amplitude, secular trends for blacks follow those just described for white men.

We interpret the high returns to schooling in 1940 as a reflection of the lingering effects of the Great Depression. Skill-income ratios are well known to be pro-cyclical, with less educated workers bearing more than their proportionate share of the economic penalties of recessions. It should not be surprising if incomes in 1939 also reflect this reality.

Between 1950 and 1970, the income benefits from education rose from almost 4 percent among younger workers and by at least half a percent for older workers. Forces operating on both the demand and supply side of the market are consistent with this increase. During these twenty years, new workers in this period were members of the low-birth-rate

Table 15

BLACK SCHOOLING COEFFICIENTS BY BIRTH COHORTS

Median Year of Work Cohorts	Experience Interval (Years)							
	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40
1902								3.64
1907							3.12	
1912						3.69		2.38
1917					3.44		2.34	
1922				3.88		3.12		2.81
1927			4.67		1.79		3.18	
1932		5.14		3.18		4.00		3.70
1937	4.70		4.04		4.06		3.55	
1942		3.27		4.71		4.24		3.39
1947	4.03		4.66		5.36		4.46	
1952		5.32		5.96		5.11		
1957	5.81		6.26		5.64			
1962		6.69		6.12				
1967	7.97		7.24					
1972		7.31						
1977	9.62							

SOURCE: Tables A1, A2.

cohorts of the 1920s and 1930s. As a result, the supply of new college graduates into the labor market was not large. According to Freeman (1976), these twenty years also were a period of sharply accelerating demand for college-trained manpower. The growth in demand reflected relative demand growth in skill-intensive industries as well as the complementarity of skilled labor with the rapid rate of technological advance during these years. As a result, the rise in schooling coefficients between 1950 and 1970 is consistent with market forces determining the price of skill. As is well known, during the decade of the 1970s supply and demand forces were precisely the reverse. Large numbers of college graduates, members of the baby boom generations, entered the labor market just as the demand for college-trained manpower was declining.[12]

Table 16 highlights some very dramatic secular changes by race. Of the forty numbers in this table, there is but one instance where trends in the returns to schooling favored whites (the 1-5 experience interval between 1950 and 1960). In all other cases, a persistent narrowing of racial differences in schooling coefficients took place. The end result of this forty-year persistence is that the magitude of change became quite large. For example, among those in their first five years of work in 1940, white men's income increased 5 percent more than did black men's for each additional year of school attended. In that year, for example, white men's income would increase 20 percent more than black men's as a result of attending and completing college. This white advantage declined as each new cohort of workers entered the labor market. In fact, among men who first entered the labor market during the 1970s, the income benefits that blacks received from schooling now exceed those of white men.

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[12] There also exists a distinct experience component to these education coefficients within each of the cross-sectional surveys. For example, our estimated black schooling coefficient in 1970 was 7.97 percent for those with 1 to 5 years of work experience, but only 3.70 for black men with 36 to 40 years of experience. While this cross-sectional pattern exists for white men, it is far more acute among black men, particularly after the first experience interval. Most important, the black attenuation with experience has increased sharply in more recent Census surveys.

Table 16

RACIAL DIFFERENCES IN EDUCATION COEFFICIENTS
ARRANGED BY BIRTH COHORTS

Median Year of Work Cohorts	Years of Work Experience 1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40
1902								4.46
1907							4.81	
1912						4.89		3.60
1917					5.08		3.49	
1922				4.81		3.05		3.35
1927			4.09		4.30		3.43	
1932		3.78		2.88		2.64		2.66
1937	5.08		2.21		2.58		3.11	
1942		2.25		1.84		2.50		2.08
1947	2.06		1.99		1.68		1.73	
1952		1.63		1.42		1.34		
1957	3.12		0.88		1.27			
1962		0.75		-0.47				
1967	2.02		-0.47					
1972		-1.18						
1977	-1.09							

SOURCE: Tables A1, A2.

Alternative explanations can be offered for this racial convergence in education coefficients. The Civil Rights movement and its associated legislation during the 1960s is one obvious candidate. A number of studies, including our own,[13] demonstrated that black male college graduates were one of the primary beneficiaries of affirmative action pressures. Consistent with this view, the racial convergence in education coefficients was twice as large in the 1970s as in the 1960s.

However, this cannot be the whole story nor, for that matter, a very large part of it. Table 16 also indicates that the general pattern of rising relative returns to black schooling emerged long before the Civil Rights activism of the 1960s. Indeed, these rising relative black returns characterize the entire twentieth century represented in Table

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[13] For one example, see Smith and Welch (1984).

16. Because of this, we must search for causes that lie far deeper in black American history than contemporary political movements.

A subtle pattern contained within Table 16 offers an important clue to what these underlying causes might be. The cross-sectional pattern in every Census suggests that black-white differences in education coefficients expand as we move from less to more experienced workers. This expansion is consistent with a life-cycle perspective where black skilled labor is denied access to jobs with significant career wage growth. Alternatively, it may reflect cohort styled effects where the relative returns to schooling are permanently higher for younger generations of black workers.

Table 16 strongly supports the second interpretation. Instead of black schooling coefficients declining relative to whites across actual life cycles (as implied by the cross-section), precisely the opposite occurred. Thus, the root cause of the improvements in relative black returns apparently lies within long-term improvements across birth cohorts that enabled blacks to translate an incremental year of schooling into more income.

The evidence we have accumulated in earlier research clearly points to improving quality of black schools as the most plausible explanation for this cohort improvement. Because that work is presented in detail elsewhere, we simply summarize some highlights here.

The current, and in many cases valid, criticism of the quality of contemporary black education tends to make us forget that the situation historically was much worse. In terms of nominal characteristics of schools, Welch (1974) collected data that tell a clear story of improving relative quality of black schools. A sample of his supporting data is reported in Table 17. The change that may have been of greatest importance in terms of learning acquired is the convergence in length of school term between blacks and whites. In 1920, black youths attended school three-fourths of a year less than white students. By 1954, the year of the Supreme Court desegregation decision, there were no real black-white differences in days attended. Similar differences emerge in pupils enrolled per classroom teacher. In 1920, black teachers had one and three-fourths times as many pupils as the average teacher in the

Table 17

COMPARISON OF TRENDS IN CHARACTERISTICS AMONG SEGREGATED BLACK SCHOOLS, SOUTHERN WHITE SCHOOLS, AND ALL U.S. SCHOOLS, 1899-1954

	Average Days Attended Per Pupil Enrolled		Pupils Enrolled Per Classroom Teacher	
Year	Black Schools	All Schools	Black Schools	All Schools
1899-00	57	69[a]	56.7	42.5[a]
1908-09	71	88	56.4	39.9[a]
1919-20	80	121	56-0	31.8
1929-30	97	143	43.7	30.0
1939-40	126	152	45.3	29.0
1949-50	148	158	33.6	27.5
1953-54	151	159	32.9	27.9

[a] Southern white schools only.

country. By 1954, this difference had been substantially reduced. This consistent picture of simultaneous convergence in all these dimensions makes the case that improving relative quality of black schools is the underlying cause of the increase in black education coefficients relative to those of whites.

CONCLUSION

This section has explored schooling's role in promoting black economic mobility and in explaining the closing of the racial wage gap. Many observers have disputed the historical importance of schools as a vehicle for achieving pay equity. Their claim is based largely on two beliefs. First, they point to a series of historical studies showing that black income benefits from schooling were negligible. They also argue that long term advances in black education did not produce any closing of the racial income gap, at least until the mid-1960s. In this section, we demonstrate that black schools have played a far more fundamental role in shaping the economic history of blacks than these claims would suggest.

Our evidence began with a description of some prominent patterns associated with racial wage ratios across schooling classes. Racial wage disparities within eduation levels have historically been quite large. Evaluated at the same amount of schooling, black male wages averaged 50 to 55 percent of those of white men. By 1980, comparably educated black men earned 75 to 82 percent as much as white men. These wage ratios were 10 percentage points higher than the aggregate ratio across all schooling groups in those years. That contrast informs us that education is significant in explaining part of the racial wage gap. However, it also warns us that simply equalizing the number of years of schooling alone would leave a sizeable racial wage gap left unexplained.

The second pattern we identified was that black wages as a percent of white wages declined sharply as we moved from less to more schooled workers. For example, among those with 11 years of schooling or less in 1940, mature black men earned about half as much as white men. In contrast, in the same age group, black men with high school or college degrees earned little more than a third as much as similarly educated white men. The more optimistic news is that this decline in black relative wages as schooling increases had largely disappeared among younger workers by 1980.

The final pattern concerned career wage growth of comparably educated black men and white men. Contrary to widespread beliefs, black and white men with the same schooling enjoyed similar career wage growth. For the most part, after thirty years of work experience, black wages, as a percent of white, were quite similar to the wage disparity that existed at the beginning of the work career.

Our first step in assessing the overall impact of schooling towards explaining the closing of the racial wage gap was to examine the extent to which black educational accomplishments have been catching up to those of whites. Not surprisingly, the education levels of each new generation of workers increased over the last forty years. While this trend exists for both races, it was much sharper for black men. Educational differences still persist between the races, but they are far less today than at any time in our history. In 1980, a typical black man had a year-and-a-half less schooling than the average white male worker. Forty years earlier, white men had 3.7 years more schooling than did the black male workers with whom they competed in the labor market. During the last forty years, forty percent of the education gap between the races had been eliminated.

While the 1940 education credentials of white workers were far less than those of today's workers, white men had a decidedly larger educational advantage over their black contemporaries. In that year, the average white worker completed 9.4 grades, 3.7 more than their black rivals. The majority of white men had at least some high school training and one in four were high school graduates.

The second part of our story concerned what schooling was able to buy in terms of increased labor market earnings. In our research, we obtained estimates for each race of the monetary economic payoff associated with an additional year of schooling. The income benefits that blacks received from schooling were, indeed, historically quite low. In 1940, attending school for another year raised black male wages by less than 4 percent--half the amount for whites. Matters had improved little by 1950. Among older black workers, each year of schooling increased wages by less than 3 percent.

Over the last forty years, however, a persistent narrowing of racial differences in income benefits from schooling took place. The end result of this forty-year persistence is that the magnitude of change became quite large. For example, among those in their first five years of work in 1940, white men's income increased 5 percent more than did black men's for each additional year of school attended. In that year, for example, white men's income would increase 20 percent more than black men's as a result of attending and completing college. This white advantage declined as each new cohort of workers entered the labor market. In fact, among men who first entered the labor market during the 1970s, the income benefits that blacks received from schooling now exceed those of white men.

Alternative explanations can be offered for this racial convergence in the economic payoff from schooling. The Civil Rights movement and its associated antidiscrimination legislation during the 1960s is one obvious candidate. Affirmative action attempts to increase black employment in those high-skill jobs where they previously had been scarce. Consistent with this argument, the increase in the income benefits to black education was more rapid in the 1970s and 1960s.

However, affirmative action cannot be the whole story nor, for that matter, a very large part of it. The principal reason is that the increase in the economic benefits of black schooling began long before the affirmative action pressures of the last two decades. More than half of the narrowing of the gap in income benefits from schooling between the races took place before 1960. As a result, the narrowing with regard to the benefits from education was as large during the twenty years from 1940 to 1960 as it was in the twenty years after 1960.

Because of this, we must search for causes that lie far deeper in black American history than contemporary political movements. The root cause of the improvements in relative black returns apparently lies within long-term improvements across birth cohorts that enabled blacks to translate an incremental year of schooling into more income. The evidence we have accumulated clearly points to improving quality of black schools as the most plausible explanation for this cohort improvement. This consistent picture of simultaneous convergence in all dimensions of schooling quality makes the case that improving relative quality of black schools is the underlying cause of the increase in black economic benefits from education relative to those of whites.

IV. CAUSES OF THE CONVERGENCE IN RACIAL WAGE RATIOS: GEOGRAPHIC LOCATION

Americans have always tried to improve their economic lot by moving to places with better prospects for economic advancement. Since the end of slavery, large numbers of black men exercised their freedom to choose the place where they lived and worked. For many decades, most of this black migration took place within the South. Beginning in 1910, the great black migration northward started, a movement which accelerated after 1940.

While migration has been changing residential patterns, the regional structure of the American economy has also changed--to the point that it bears little resemblance to that of 1940. The agriculture-based economy of the South, for example--characterized by low productivity and little technological advance--was viewed as a drag on black economic progress in 1940. The situation now is far different. Today, the smokestack industries of the North Central and Northeastern states are in decay while the restructured Southern economy is booming.

In this section, we investigate the impact of changing patterns of regional location on trends in black-white male wage ratios. Two salient changes in black residential location are highlighted: the massive black migration from the South to the North and the continuing urbanization of the black population. We also explore the implications of the rapidly changing structure of black-white wage disparities within regions.

CHANGING PATTERNS OF RESIDENTIAL LOCATION

Two geographic factors stand out in shaping the economic status of blacks: their concentration in the Southern states, and the increasing urbanization of the black population. During the period that we are studying, important changes were occurring across both dimensions that would radically transform the geography of the black population.

Table 18 illustrates one of these dimensions--the percent of males who live in the South. Throughout American history, the economic welfare of blacks has been tied closely to events in the South. Fully 9 out of 10 blacks were Southerners in 1790, a proportion that changed but little over the next 120 years. Since 1910, the fraction of blacks living in the South has steadily declined. Spurred in part by the cutoff in European immigration, the great Northern black migration spanned the next two decades, 1910-1930. When completed, it transformed the geographic and economic character of black America.[1]

Even so, three quarters of all blacks still lived in the Southern states in 1940 (see Table 18), but with the end of the Depression, the movement North resumed with renewed force. During each decade between 1940 and 1970, a million and a half Southern blacks migrated to the North.[2] The end result was to leave only slightly more than half of all black men living in the South in 1970. The flow then reversed during the 1970s: As it did for white Americans, the net movement of blacks turned southward. A slightly larger proportion of blacks lived in the South in 1980 than lived there ten years earlier.

In contrast to these very dramatic changes, Table 18 indicates a remarkable stability in the distribution of the white population between the South and North. Slightly less than 30 percent of white men lived in the South, a proportion that has roughly prevailed for decades. There was an upward blip to over 30 percent during the 1970s, a reflection of the widely noted move to the Sunbelt.

The great Northern migration had profound effects, of course. The culture, laws, and economy of the South would no longer play so exclusive a role in shaping the economic position of blacks. However, it is easy to exaggerate the extent of this change. Even today, the majority of blacks remain citizens of the South. Compared with the

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[1] During the first World War, the number of black Northern migrants trebled relative to the previous decade. This rate doubled again in the 1920s when three quarters of a million blacks made their way to Northern cities.

[2] Note that in Table 18 the proportion of blacks living in the South declines only slightly after age 35 as we follow a birth cohort across its life. Decisions to migrate are largely completed by age 35.

Table 18

PERCENTAGE OF WHITE AND BLACK MALES LIVING IN THE SOUTH, 1940-1980

Age	1940	1950	1960	1970	1980
			White Males		
16 to 25	28.7	30.2	30.9	30.1	31.4
26 to 35	28.4	27.9	28.2	30.0	32.0
36 to 45	27.5	28.4	27.5	29.3	32.8
46 to 55	27.5	27.6	28.1	28.3	31.7
56 to 64	28.2	26.5	28.1	29.1	31.0
Total	28.2	28.4	28.6	29.5	31.8
			Black Males		
16 to 25	80.2	69.8	63.1	54.6	55.2
26 to 35	75.0	59.4	52.1	48.6	53.3
36 to 45	69.9	60.8	54.1	48.5	49.8
46 to 55	71.0	62.4	58.6	51.8	50.8
56 to 64	73.7	67.0	60.0	56.9	53.2
Total	74.8	63.8	57.5	52.1	53.1

SOURCE: Public Use Samples of the decennial U.S. Censuses.

situation for whites, black economic well-being is still closely tied to the robustness of the Southern economy.

Moreover, geographic shifts in the places where blacks currently live shroud the continuing legacy of the South. Consider Table 19, which lists the percentage of black males born in the South. In contrast to the sharp upward trend in Northward migration, the percentage of Southern-born blacks remained stable until 1970.

Place of birth being immutable, the effects of migration on place of birth appear with a generational lag when the Northern-born children of migrants finally enter the labor force. Assuming a twenty-year generational lag, the initial ripples from the post-World War II black

Table 19

PERCENTAGE OF BLACK MALES BORN IN THE SOUTH

Age	1940	1950	1960	1970
16 to 25	88.9	81.4	80.3	66.7
26 to 35	91.4	87.3	80.9	75.3
36 to 45	91.5	90.2	86.5	76.6
46 to 55	91.4	90.8	89.8	82.8
56 to 64	91.0	91.6	90.1	85.7
Total	90.6	87.3	84.6	75.2

SOURCE: Public Use Samples of the Decennial U.S. Censuses.

migration are first detectable among those aged 16-25 between 1960 and 1970. Table 19 illustrates the slow-moving nature of these changes: Three-quarters of all black men were Southern-born by as late as 1970--another reminder that black roots in the South still run deep.

Besides migration, the geography of black people altered in another fundamental way. After the Civil War, 9 of 10 blacks lived in rural farm areas, especially in the rural counties of the Southern black belt. This century has witnessed the transition of the black people from largely rural to predominately urban. Although it began in the early decades of the twentieth century, this transition was completed during the forty-year period that we study in this report.

Table 20 lists the percentage of men who live in SMSAs and in central cities. In 1940, whites were still more urbanized than blacks. Urbanization affected both races, but blacks far more so than whites. By 1980, four out of every five men of both races lived in urban areas. Today, the principal difference between them is where the majority of them live within urban areas: whites in the suburban fringes, blacks in the central cities. Fully 75 percent of all black SMSA residents resided in the central cities, compared with only 38 percent of whites.

Table 20

URBANIZATION OF MALES BY RACE

Area of Residence	Census Year 1940	1950	1960	1970	1980
SMSA					
Black	44.1	52.0	60.3	69.4	79.0
White	51.0	55.2	56.7	60.4	79.0
Central cities					
Black	29.8	40.0	49.8	55.5	58.5
White	26.7	26.9	25.8	24.2	29.8

SOURCE: Public Use Tapes of the decennial U.S. Census.

In the North, blacks have always been more urbanized than whites. Even in the South a roughly equal fraction (one-third) of blacks and whites lived in urban areas. The overall difference between the races was largely due to the black concentration in the South, which was much more rural than the rest of the nation. The more rapid pace of urbanization of blacks documented in Table 20 reflects two factors. First, the South, a black-intensive region, urbanized more rapidly than the rest of the nation. Second, blacks left the relatively rural region of the South to live in the more urban North.

BLACK-WHITE WAGE DIFFERENCES BY GEOGRAPHIC LOCATION

Even among men who have the same amount of education and job experience, large geographic wage differentials prevail among regions. Identifying their underlying causes is a complex empirical problem. Some of these wage disparities simply reflect cost-of-living differences between regions, or compensating payments for the relative attractiveness or undesirability of locational attributes (e.g., climate, crime, and density.)[3] Given the magnitude of the regional wage differentials we estimate, it is also likely that they proxy unobserved indices of skill. The large black-white wage gap in the

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[3] For an attempt to price these attributes, see Rosen (1977).

South may well reflect the historically more intense racial discrimination there.[4]

Whatever the causes, it is fair to say that despite the growing amount of good work on this subject, the underlying sources of geographic wage differentials have not been adequately documented. Nor do we attempt to do so here. Our less ambitious goal is to measure how much of the change in the racial wage gap can be attributed to two geographic facts: (1) that blacks and whites live in different regions of the country, and (2) that the black-white wage gap varies across regions. As wages between regions change over time--whatever the underlying causes--we can measure the impact of such changes on the aggregate black-white wage gap. Even for this much simpler problem, the results must be interpreted with caution. Calculations based on redistributing population between areas without compensating adjustments in average wages between regions are at best crude indicators. Historically, it is doubtful whether migrants have been representative either of region of origin or of destination.

Table 21 presents our estimated wage difference associated with living in the Southern states. Traditionally, men of either race earned less in the South than in the North. Until the last decade, Southern white men received about 10 percent lower wages than white men located elsewhere. As is well known, the black-white wage gap is much larger in the South than the rest of the country. Until recently, black weekly wages were approximately 30 percent lower in the South than black men were able to earn in the North. Our estimates confirm that wages were lower in the South for both races, but the penalty for blacks was simply much larger.

No long-term secular trend exists between 1940 and 1970 in these geographic wage differences. After 1970, however, wages of men of both races increased faster in the South than in the rest of the country, particularly among younger workers. Most likely, the reason was economic resurgence of the South.

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[4] To the extent that local labor markets are distinct, they also capture short- and long-run wage differentials among markets.

Table 21

ESTIMATED REGRESSION COEFFICIENTS FOR SOUTHERN RESIDENCE

	Experience Interval							
Sample	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40
Blacks								
1940	-24.6	-25.8	-27.5	-30.0	-28.8	-33.3	-31.0	-32.1
1950	-26.2	-27.7	-27.3	-26.9	-37.7	-37.8	-34.6	-29.0
1960	-33.7	-31.7	-28.4	-29.6	-29.8	-31.2	-37.5	-35.3
1970	-20.9	-27.3	-28.4	-27.7	-27.1	-30.7	-29.3	-29.3
1980	-9.1	-11.8	-10.3	-17.5	-17.3	-16.1	-18.8	-22.9
Whites								
1940	-1.8	-9.3	-10.7	-10.6	-10.8	-11.5	-10 4	-9.5
1950	-8.0	-12.0	-7.9	-12.6	-13.9	-13.7	-11.8	-18.7
1960	-9.9	-12.1	-11.3	-9.4	-9.2	-10.8	-12.8	-14.3
1970	-5.7	-9.0	-10.0	-10.0	-9.6	-8.6	-8.0	-9.4
1980	-1.8	-5.1	-6.0	-6.0	-7.9	-9.4	-7.6	-7.8

SOURCE: Tables A1 and A2.

Table 22 lists the additional black-white wage gap associated with living in the South. Between 1940 and 1960, there was remarkable stability in these racial wage differences. We estimate that black-white weekly wage differences were on average 20 percent larger in the South than in the North.

Between 1960 and 1970, the racial wage disparity in the South narrowed for younger workers but remained at historical levels among mature male workers. However, the truly dramatic story occurred between 1970 and 1980. A very sharp decline took place during the 1970s in the black-white male wage gap in the South. These racial wage differentials fell by half to two thirds of their 1970 levels. As a result, black-white Southern wage differences have moved significantly towards the national norm.

Table 22

ESTIMATED RACIAL DIFFERENCE IN SOUTHERN RESIDENCE COEFFICIENTS

	Experience Interval							
Year	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40
1940	-22.8	-16.5	-16.9	-19.5	-18.0	-21.8	-20.6	-22.5
1950	-18.2	-15.6	-20.4	-14.3	-23.9	-24.1	-22.9	-10.3
1960	-23.8	-19.7	-17.1	-20.2	-20.6	-20.5	-24.6	-21.0
1970	-15.2	-18.3	-18.3	-17.9	-17.6	-22.1	-21.3	-19.9
1980	-7.3	-6.8	-4.4	-11.5	-9.5	-6.7	-11.2	-15.1

SOURCE: Tables A.1 and A.2.

Two explanations are possible. First, black-white skill differences may have converged in the South as the post World War II cohorts entered the labor market. To illustrate this point, assume that Southern schools were effectively desegregated in 1960, six years after the Brown decision. The first class of Southern black children who had attended entirely desegregated schools would have first entered the labor market in the early to mid-1970s. Some of the improvement in black incomes during the 1970s may have been due to the skills acquired through this improved schooling, but that is unlikely to be the whole story because there was a substantial erosion in racial wage disparities even among older workers. A more complete explanation may well be that racial discrimination is waning in the South.

One issue that cross-sectional estimates such as those contained in Tables 21 and 22 cannot answer is whether the wage differences between regions correctly measure the potential income gain from migration. To furnish some insight on this issue, Table 23 lists estimated percentage wage differentials associated with place of residence and birth. In the regressions on which these estimates are based, the excluded group are men both born and currently living in the North. As a result, these

Table 23

WAGE DIFFERENTIALS ASSOCIATED WITH REGION OF RESIDENCE AND BIRTH, 1960

Place of Birth and Residence	Experience Interval							
	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40
Blacks								
Southern birth, Southern residence	-33.9	-30.0	-25.7	-28.1	-27.7	-21.5	-33.3	-32.7
Northern birth, Southern residence	-28.1	-24.2	-12.3	-13.2	-17.5	-7.0	-0.8	-16.8
Southern birth, Northern residence	-0.8	2.7	5.3	2.4	3.1	12.5	5.1	2.1
Whites								
Southern birth, Southern residence	-9.9	-13.2	-12.6	-11.1	-10.8	-12.6	-14.1	-15.2
Northern birth, Southern residence	-4.9	-3.5	-2.8	0.8	-0.4	1.7	3.8	-1.7
Southern birth, Northern residence	9.2	5.1	5.0	5.4	5.2	4.8	3.9	3.6

estimated wage differences in Table 23 are all relative to wages of Northern-born Northern residents.[5]

The most surprising result from Table 23 is that Southern-born blacks who now live in the North earn more than blacks born and living in the North. This result must, however, be interpreted cautiously. These cross-sectional wage differentials do not necessarily represent the wage any individual could achieve by moving from the South to the North. Selective migration may be operating. That is, even after adjusting for education and labor market experience, it is possible that Southern-born black men who now live in the North are simply far more able than those blacks who remained in the South. However, the magnitude of these wage differentials seems too large to be associated with selectivity of migrants alone. This dominance of place of residence over place of birth suggests to us that nominal wage disparities between the South and North were probably quite large. If so, to a considerable extent, the black wage disparities between the North and South are a good measure of the economic gains from migration.

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[5] Only the results obtained from the 1960 Census are presented in the text. The estimates from the other Census years were qualitatively similar to those in 1960.

One of the oldest controversies in the literature on black-white earnings differences centers on the role of lower-quality black Southern schools in limiting the labor market potential of blacks. In addressing this issue, one must be careful to separate issues surrounding schooling quality from regional differences in the market for skilled labor. Since skilled labor is relatively scarce in the South, the premium to skill (as measured by years of education) may be higher there even though Southern schools are of lower quality. To separate these effects, we have interacted years of education separately with dummy variables for Southern residence and Southern birth--the former to capture regional differences in the returns to skill, and the latter to measure regional differences in quality of schooling.

According to our estimates, the South is characterized by a larger wage premium to skill for both races. The fact that schooling demands a premium in the South may well be the basis for the migration of skilled labor to the South during the post-World War II era. However, Southern birth (and, presumably, attendance at Southern schools) lowers the wage premium to schooling for both races. If there is evidence of quality of schooling here, it is that Southern schools were inferior for both whites and blacks.

We complete our summary of regional dimensions to the racial wage gap with a brief discussion of wage disparities between urban and rural areas. Table 25 lists estimated wage differences for each race from living in an SMSA and from living in the central cities of those SMSAs. To facilitate racial comparisons, Table 26 lists black-white differences in those urban-wage effects.

Men who live in SMSAs earn higher wages, a wage premium well documented in the literature. Among whites, this urban wage premium has declined over time. In 1980, white men in SMSAs earned 20 percent more

Table 24

REGIONAL RETURNS TO SCHOOLING

Place of Birth and Education	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40
	Experience Interval							
			Black Men					
Southern birth x education	-.031	-035	-022	-019	-028	-017	-037	-014
Southern residence x education	007	.025	027	032	029	035	030	031
			White Men					
Southern birth x education	-019	-.010	-014	-013	-017	-012	-010	-.002
Southern residence x education	.024	.026	.025	.021	.029	.028	.028	.025

NOTE: These results were obtained from the 1960 Census. Qualitative results from other Census years were quite similar.

than other whites; in 1940 this wage premium was 33 percent. A similar negative drift occurs among black men, and the size of the secular change is approximately the same magnitude. Over time, the income benefits from living in SMSAs have simply eroded.

Among white men, the secular trend has been that white men living in central cities earn less than other white residents of SMSAs--by 1980, 10 percent less. In contrast, black men who lived in central cities traditionally have had higher wages, but this wage premium has declined significantly over time. In 1940, central city blacks earned 10 percent more than other black urban dwellers; by 1980, they earned 10 percent less. The impact of these trends on black-white differences are isolated in Table 26. During the 1940s and 1950s, the central city coefficients favored black men. By 1980, there was little difference between the races associated with central city residence. The long-

Table 25

ESTIMATED SMSA AND CENTRAL CITY REGRESSION COEFFICIENTS

	Experience Interval							
Sample	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40
SMSA Regression Coefficients								
Blacks								
1940	26.4	28.1	35.3	27.8	36.9	33.5	36.9	33.6
1950	24.8	36.2	36.0	40.7	33.7	46.4	34.7	41.4
1960	6.7	21.7	20.0	25.3	25.5	22.8	34.0	32.4
1970	-1.6	5.2	7.2	11.8	11.6	14.7	14.5	20.5
1980	10.1	19.9	22.3	24.7	20.6	19.7	19.5	30.8
Whites								
1940	28.9	30.5	31.1	33.2	36.5	33.8	34.3	37.2
1950	20.4	21.6	21.8	23.3	23.9	27.4	31.4	31.8
1960	17.6	18.1	19.6	22.5	23.3	26.0	29.6	33.4
1970	11.6	13.3	17.1	18.2	17.7	20.2	19.8	24.1
1980	2.7	13.2	18.0	19.8	20.6	20.2	20.5	21.1
Central City Regression Coefficients								
Blacks								
1940	17.7	16.0	9.1	8.9	7.8	5.7	6.8	9.0
1950	11.6	3.2	3.4	-0.0	-3.4	-5.9	5.6	2.8
1960	15.3	6.3	9.0	6.4	10.6	13.5	8.7	14.4
1970	10.0	8.6	4.6	2.8	4.2	4.2	7.7	5.3
1980	-4.1	-9.1	-12.1	-9.3	-11.7	-8.7	-5.9	-11.6
Whites								
1940	5.5	3.0	2.6	3.9	2.6	4.1	6.9	4.1
1950	1.3	0.1	-0.0	-1.3	-0.1	0.0	1.3	6.4
1960	-1.3	-4.9	-7.5	-7.1	-7.0	-5.3	-5.0	-2.0
1970	-3.6	-5.1	-6.7	-7.7	-8.1	-6.0	-4.8	-4.9
1980	-6.2	-9.9	-11.9	-12.8	-11.7	-11.0	-10.6	-9.1

SOURCE: Tables A1, A2.

Table 26

ESTIMATED RACIAL DIFFERENCE IN URBAN COEFFICIENTS

	Experience Interval							
Sample	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40
SMSA Regression Coefficients								
1940	-2.5	-2.4	4.2	-5.4	.4	-0.3	2.6	-3.6
1950	4.3	14.6	14.2	17.5	8.8	19.0	3.2	9.9
1960	-10.9	3.6	.4	2.9	2.3	-3.2	4.4	-1.0
1970	-10.0	-8.1	-9.9	-6.4	-6.1	-5.5	-5.3	-3.6
1980	7.4	6.7	4.3	2.7	-0.1	-0.1	0.9	9.8
Central City Regression Coefficients								
1940	12.1	13.0	6.6	5.0	5.1	.2	-.1	4.8
1950	10.4	2.3	3.2	8.7	2.6	10.5	4.3	-3.6
1960	16.6	11.2	16.5	13.4	17.5	18.8	13.8	16.4
1970	13.6	13.6	11.3	10.4	12.3	10.1	12.5	10.3
1980	2.0	0.8	-.3	3.5	-.1	2.3	4.7	-2.5

term economic decline of the central cities is the most likely cause of the deteriorating wages for black central city residents.

CONCLUSION

Americans have always tried to improve their economic lot by moving to places where prospects for their economic advancement are better. Since the end of slavery, large numbers of black men have exercised their freedom to choose the place where they lived and worked. For many decades, most of this migration took place within the North. Beginning in 1910, the great black migration northward started, a movement which accelerated after 1940.

Alongside these changes in residential location, the regional structure of the American economy has been so transformed that it bears little resemblance to that of 1940. The agriculture-based economy of the South--characterized by low productivity and the absence of important technological innovations--was viewed as a significant drag on black economic progress in 1940. The situation now is far different.

Today, the smokestack industries of the North Central and North Eastern states are in decay while the restructured Southern economy is booming.

In this section, we investigated the impact of these changing patterns of regional location on trends in black-white male wage ratios. Two salient changes in black residential location were highlighted: the massive black migration from the South to the North and the continuing urbanization of the black population. In addition, the implications of the rapidly changing structure of black-white wage disparities within regions were examined.

The years from 1940 to 1970 witnessed a massive movement of blacks from the South to the cities of the North. As a result, the percentage of black men living in the South declined from 75 percent to about 50 percent. After 1970, however, the flow reversed and the net movement of blacks turned to the South. Meanwhile, the distribution of the white population between the South and North remained remarkably stable. Slightly less than 30 percent of white men lived in the South, a figure that has stayed roughly the same for decades.

While the great Northern migration had profound effects, it is also easy to exaggerate them. Even today, a slight majority of blacks remain citizens of the South where, more so than for whites, their economic well-being is closely tied to the robustness of the Southern economy.

This century has also witnessed the transition of the black citizenry from largely rural to predominately urban. Although it began in the early decades of the century, this transition was completed during the forty-year period that we study in this report. Today, the principal locational difference between the races is where they live within urban areas. The majority of whites live in the suburban fringes, most blacks in the central cities. Fully 75 percent of all black SMSA residents live in the central cities, compared with only 38 percent of whites.

We have also examined regional differences in the black-white wage gap. Men of both races traditionally earned less in the South than in the North. Until the last decade, Southern white men received about 10 percent lower wages than white men elsewhere. As is well known, the black-white wage gap is much larger in the South than the rest of the country. Until recently, black weekly wages were approximately 30 percent lower in the South than black wages in the North.

No long-term secular trend exists between 1940 and 1970 in the mean wage gap between the North and South. After 1970, however, wages of men of both races increased faster in the South than in the rest of the country. These wage increases in the South were particularly large among younger workers. Between 1940 and 1980, wages of young Southern whites increased 5 percent more than Northern white wages. The most plausible cause of this differential wage growth was the economic resurgence of the South during the last decade.

Our main interest centered on the racial wage gap in the South, which was about 20 percent greater than in the North until 1960. Between 1960 and 1970, it narrowed for younger workers but remained at historical levels among mature male workers. However, the truly dramatic story occurred between 1970 and 1980: The black-white male wage gap declined very sharply in the South--by half to two-thirds of its 1970 level. As a result, the Southern racial wage gap has moved toward the national norm.

Two explanations are possible for this rapid narrowing of the racial wage gap. First, black-white skill differences may have converged in the South as the post-World War II cohorts entered the labor market. For example, the first class of Southern black children who had attended entirely desegregated schools would have first entered the labor market in the early to mid-1970s. But because there was a substantial erosion in racial wage disparities even among older workers, that is unlikely to be the whole story. A more complete explanation may well be that racial discrimination is waning in the South.

The region where people currently live dominates the region of birth in explaining the wages that men earn. That dominance suggests to us that nominal wage disparities between the South and North were probably quite large. If so, to a considerable extent, the black wage disparities between the North and South are a good measure of the economic gains from migration. However, we did find that Southern birth (and, presumably, attendance at Southern schools) lowers the wage premium to schooling for both races. If there is evidence of quality of schooling here, it is that Southern schools were inferior for both whites and blacks.

The second dimension of geographic wage disparities we studied concerned urban-rural differences. Men who live in SMSAs earn higher wages, a wage premium well documented in the literature. Among whites, this urban wage premium has declined over time. White residents of SMSAs earned 33 percent more than other whites in 1940; by 1980 the figure had fallen to 20 percent. Across these forty years, SMSA wage-differentials have been quite similar for blacks. Over time, the income benefits associated with living in SMSAs have simply eroded.

The real difference between the races at present is where they live within urban areas. As we have seen, whites have moved out of the central cities, leaving a largely black population behind. There have been important changes in the wage structure in central cities over the last forty years. White men living in central cities earn less than other white residents of SMSAs--by 1980, 10 percent less. In contrast, black men who live in central cities traditionally have had higher wages, but this wage premium has declined sharply over time. In 1940, black men in central cities earned a 10 percent wage premium; by 1980, they suffered a wage penalty of 10 percent. The long-term economic decline of the central cities is the most likely reason.

V. ACCOUNTING FOR THE RACIAL WAGE GAP

The principal question we are trying to answer in this section is deceptively simple to pose: To what extent do the racial trends in education and geographic location described in Secs. III and IV explain the narrowing of black-white male wage gap? How much of that narrowing is due to black gains in education and its quality, and how much should be attributed to migration and the resurgence of the Southern economy?

This emphasis on education and region does not imply that they are the only forces at work. Indeed, this section discusses three more factors in detail: the decline in Southern black agriculture, the falling labor force participation rates of black men, and affirmative action. These factors played a contributing role, but what happens in the schools and where people decide to live turn out to be the two dominant forces shaping the economic status of blacks over the long term.

THE STATISTICAL FRAME

Below, we use our regression estimates to partition the closing of the racial wage gap into its component causes.[1] Our accounting summary is based on a statistical analysis of male weekly wages in the five micro data files from the 1940 to 1980 Censuses. Regressions were estimated separately within eight five-year experience intervals, ranging between 1 to 5 and 36 to 40 years of work experience. Separate analyses were conducted for each race and within each of the five decennial Censuses. The dependent variable in each specification was the logarithm of the weekly wage. Explanatory variables fall into five groups: (1) years of schooling; (2) dummy variables indicating residence in the South; (3) SMSAs; (4) the central cities of these SMSAs, and (5) a set of single-year experience dummies within each experience interval.

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[1] We recognize that causal models have not been developed here. Instead, this regression accounting is useful in that it provides the initial step in indicating what factors are of significant enough size to matter.

Our full regression estimates and associated standard errors are presented in Appendix Tables A.1 and A.2. We summarize in the text only the implications of these statistical models for explaining the narrowing of the racial wage gap.

Define the ratio of black-white male wages as R, so that $\ell n\ R$ is the percentage gap in incomes between the races:

$$\ell n\ R = y_1 - y_2 = x_1\beta_1 - x_2\beta_2 + u_1 - u_2 \tag{1}$$

and

$$\Delta\ \ell n\ R = (y_1 - y_2) - (y_3 - y_4) = (x_1\beta_1 - x_2\beta_2) - (x_3\beta_3 - x_4\beta_4) + (u_1 - u_2) - (u_3 - u_4) \tag{2}$$

where x refers to characteristics affecting wages with associated parameter vectors β.

For example, assume we were analyzing the change in black-white wage ratios between 1970 and 1980. In that case, the subscripts would be: 1 = blacks, 1980; 2 = whites, 1980; 3 = blacks, 1970; and 4 = whites, 1970. Define the following terms:

$$b_0 = \beta_4$$
$$\delta_1 = \beta_3 - \beta_4$$
$$\delta_2 = \beta_2 - \beta_4$$
$$\delta_{12} = (\beta_1 - \beta_2) - \delta_1$$

Accordingly, Eq. (1) is rewritten as:

$$\ell n\ R = (x_1 - x_2)b_0 \tag{1.i}$$
$$+ x_1\delta_1 \tag{1.ii}$$

where the first term on the right-hand side is the main effect of black/white mean characteristic differences, weighted by white parameter values, and the second term (1.ii) adjusts for race parameter interaction. Equation (2) is rewritten as

$$\begin{aligned}
&(2.\text{i}) && \Delta \ln R = [(x_1 - x_2)' - (x_3 - x_4)']b_0 \\
&(2.\text{ii}) && \quad + (x_1 - x_3)'\delta_1 \\
&(2.\text{iii}) && \quad + (x_1 - x_2)'\delta_2 \\
&(2.\text{iv}) && \quad + x_3\delta_{12}
\end{aligned}$$

These equations[2] measure the rate by which the racial income gap is narrowing. We label the first term (2.i) the main effect. It measures the predicted change in black-white weekly wages that occurs because black and white men are becoming more similar in characteristics. For example, if education differences between the races narrowed over time on the main effect, the black-white wage gap would narrow.

The second term adjusts for race interaction. The intuition behind the term is straightforward. If blacks are paid less than whites for a given characteristic ($\delta_1 < 0$), then blacks will lose relative to whites when mean attribute levels rise over time. For example, on this race interaction effect, racially equal secular growth in schooling would favor whites if the proportionate income benefits from an additional year of schooling are higher for whites than for blacks.

The third term adjusts for year interaction. If the estimated coefficient attached to a characteristic increases over time ($\delta_2 > 0$), black-white wages will decline if blacks have less of this characteristic than whites. Once again using education to illustrate, if the income benefits from schooling rise between two Censuses, on the year-interaction effect, white men benefit more than black men do since they have more schooling.

Finally, the fourth term adjusts for race-year interaction. If racial differences in estimated coefficients become smaller ($\delta_{12} > 0$) over time, black wages will rise relative to white. For example, this race-year interaction term would capture the positive relative wage benefits accruing to blacks when racial differences in schooling coefficients decline secularly.

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[2] This is a model of medians. It describes the incomes of the typical black to the incomes of the typical white. The median is the income that divides the population in half.

Because we have separate regression estimates for each of the five Census years, we can perform our regression accounting across each of the four pairwise Census comparisons: 1940-1950, 1950-1960, 1960-1970, and 1970-1980. The total long-term effect can be obtained by simply summing across all individual pairwave comparisons.[3]

CHANGES IN BLACK-WHITE WAGE GAP: 1940-1980

Table 27 summarizes our accounting for changes in the black-white wage gap across the complete period 1940-1980. In this table, the four types of effects just described are summarized for each of the explanatory variables. The final column, labeled "total", represents the summation of these four effects for each variable. The residual term in the bottom left-hand corner measures changes in black-white difference in intercepts, while "actual" represents the actual change in ℓn black-white weekly wages between 1940 and 1980.[4] The accounting for pairwise Census comparisons is provided in appendix Tables A.3-A.6.

As a convenient expository device, we divide our accounting summary into its education and location components. Table 28 abstracts those elements of the regression accounting that relate to schooling. The final row under each experience group, labeled 1980-40, lists the total effect over the full forty-year period. To facilitate tracking of the timing of these changes, the other rows list pairwise comparisons across each decade.

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[3] This is an analysis of the typical person. For an analysis of the full racial differences earnings distribution, see Smith-Welch, (1977).

[4] The experience effect in these tables should be interpreted differently from the others. It simply adjusts for small changes in experience distributions within these five-year experience intervals. For this reason, this experience term is not discussed in the text.

Table 27

AVERAGE PERCENTAGE INCREASE IN BLACK/WHITE WEEKLY WAGE RATIOS, 1940-1980:
ACCOUNTING ACCORDING TO REGRESSION ESTIMATES BY WORK EXPERIENCE CLASS

Variable	Main Effect	Interaction Effect Race	 Year	 Race x Year	Total
1-5 Years of Work Experience					
Accounting summary					
Year of schooling	.3558	-.2080	.0481	.6467	.8426
Southern residence	.0197	.0691	-.0142	.0919	.1665
SMSA residence	.0660	-.0278	.0001	.0634	.1017
SMSA central city	.0096	.0535	-.0211	-.0625	-.0205
Experience	.0650	-.0141	-.0063	.0539	.0985
Total	.5162	-.1273	.0066	.7934	1.1888
Residual = -.6202					
Actual = .5687					
6-10 Years of Work Experience					
Accounting summary					
Year of schooling	.2246	-.1245	.0832	.5179	.7012
Southern residence	.0314	.0399	.0063	.0550	.1325
SMSA residence	.0667	.0072	-.0061	.0562	.1240
SMSA central city	.0061	.0261	-.0320	-.0556	-.0554
Experience	-.0006	-.0007	.0014	.0234	.0235
Total	.3282	-.0520	.0529	.5968	.9259
Residual = -.4230					
Actual = .5029					
11-15 Years of Work Experience					
Accounting summary					
Year of schooling	.1834	-.1371	.0652	.4511	.5626
Southern residence	.0284	.0369	.0117	.0682	.1452
SMSA residence	.0566	.0079	-.0068	.0060	.0637
SMSA central city	.0062	.0121	-.0396	-.0348	-.0561
Experience	-.0032	-.0007	.0024	-.0183	.0167
Total	.2714	-.0809	.0329	.5088	.7322
Residual = -.2358					
Actual = .4964					
16-20 Years of Work Experience					
Accounting summary					
Year of schooling	.1631	-.1499	.0570	.3454	.4156
Southern residence	.0254	.0291	.0084	.0451	.1080
SMSA residence	.0400	.0053	-.0083	.0647	.1017
SMSA central city	.0036	.0038	-.0456	-.0049	-.0432
Experience	.0006	-.0027	-.0025	-.0188	.0142
Total	.2326	-.1144	.0090	.4690	.5962
Residual = -.1663					
.4299					

Table 27--continued

Variable	Main Effect	Interaction Effect: Race	Interaction Effect: Year	Interaction Effect: Race x Year	Total
21-25 Years of Work Experience					
Accounting summary					
Year of schooling	.1385	-.1762	.0625	.3215	.3463
Southern residence	.0267	.0351	.0052	.0384	.1054
SMSA residence	.0475	.0017	-.0093	-.0037	.0361
SMSA central city	.0033	.0080	-.0438	-.0294	-.0619
Experience	.0008	.0062	-.0005	-.0126	-.0060
Total	.2168	-.1251	.0140	.3141	.4198
Residual = .0148					
Actual = .4346					
26-30 Years of Work Experience					
Accounting summary					
Year of schooling	.1147	-.1554	.0740	.2764	.3097
Southern residence	.0248	.0306	-.0053	.0769	.1377
SMSA residence	.0397	.0031	-.0086	-.0059	.0283
SMSA central city	-.0012	.0088	-.0396	-.0020	-.0340
Experience	-.0002	.0044	.0014	.0517	.0572
Total	.1778	-.1085	.0324	.3970	.4988
Residual = -.0794					
Actual = .4194					
31-35 Years of Work Experience					
Accounting summary					
Year of schooling	.1037	-.1785	.0547	.2459	.2258
Southern residence	.0241	.0353	.0044	.0433	.1072
SMSA residence	.0466	-.0020	-.0104	-.0216	.0126
SMSA central city	.0039	.0172	-.0448	.0122	-.0116
Experience	-.0001	-.0021	-.0003	.0941	.0916
Total	.1783	-.0301	.0035	.3740	.4256
Residual = .0200					
Actual = .4457					
36-40 Years of Work Experience					
Accounting summary					
Year of schooling	.0605	-.1389	.0866	.1660	.1742
Southern residence	.0251	.0223	-.0027	.0467	.0914
SMSA residence	.0433	.0025	-.0101	.0968	.1325
SMSA central city	.0065	.0111	-.0412	-.0451	-.0688
Experience	.0003	.0009	.0011	-.0380	-.0358
Total	.1357	-.1022	.0336	.2265	.2936
Residual = .1586					
Actual = .4522					

Table 28

SUMMARY OF REGRESSION ACCOUNTING--SCHOOLING

Period	Direct	Race	Year	Race Year	Total	Direct	Race	Year	Race Year	Total
	Experience - 1-5 Years					Experience - 6-10 Years				
1980-70	10.04	-2.34	0.77	38.88	47.35	4.20	-1.12	1.17	24.29	28.55
1970-60	6.81	-4.84	-1.62	12.53	12.89	6.37	-2.33	-0.73	9.73	13.05
1960-50	6.14	-4.05	-6.52	-10.36	-14.79	5.10	-4.50	-3.40	5.98	3.18
1950-40	12.60	-9.57	12.18	23.61	38.81	6.78	-4.50	11.28	11.78	25.35
1980-40	35.58	-20.80	4.81	64.67	84.26	22.46	-12.45	8.32	51.79	70.12
	Experience - 11-15 Years					Experience - 16-20 Years				
1980-70	2.30	-1.40	0.44	16.61	17.95	4.41	-2.16	0.55	7.07	9.86
1970-60	5.69	-3.01	-0.75	11.98	13.91	4.67	-3.24	-1.53	4.37	4.27
1960-50	4.40	-3.44	-0.97	2.00	1.98	2.81	-3.53	-1.27	8.84	6.85
1950-40	5.94	-5.86	7.80	14.53	22.42	4.42	-6.05	7.96	14.26	20.58
1980-40	18.34	-13.71	6.52	45.11	56.26	16.31	-14.99	5.70	34.54	41.56
	Experience - 21-25 Years					Experience - 26-30 Years				
1980-70	4.24	-2.80	0.18	4.65	6.27	3.75	-4.68	0.52	12.67	12.25
1970-60	5.03	-4.58	-0.82	8.78	8.41	5.65	-4.81	-0.25	1.21	1.79
1960-50	4.08	-6.93	-1.55	13.71	9.31	2.34	-4.09	-1.50	2.93	-0.31
1950-40	0.50	-3.31	8.44	5.00	10.63	-0.26	-1.96	8.63	10.83	17.24
1980-40	13.85	-17.62	6.25	32.15	34.63	11.47	-15.54	7.40	27.64	30.97
	Experience - 31-35 Years					Experience - 36-40 Years				
1980-70	4.25	-5.96	0.93	13.92	13.15	4.08	-4.51	2.03	5.39	6.99
1970-60	3.90	-6.01	-0.09	2.86	0.67	1.62	-5.20	-0.57	5.29	1.13
1960-50	0.95	-3.24	-2.57	0.36	-4.50	2.81	-3.50	-0.60	1.52	0.24
1950-40	1.27	-2.65	7.19	7.44	13.26	-2.45	-0.68	7.80	4.41	9.07
1980-40	10.37	-17.85	5.45	24.59	22.58	6.05	-13.89	8.66	16.60	17.42

EDUCATION

Across the full forty-year period, education dominates this regression accounting. The two dimensions that served to close the racial wage gap were the narrowing of education disparities between the races and the improving economic return to black schooling. The first is summarized by the main effects; the second is captured by the race-year terms.

To illustrate the importance of narrowing of schooling differences between the races, 80 to 90 percent of the rise in black-white wage ratios due to similar characteristics between the races reflects education alone. In addition, approximately one-third of the total increase in black-white wage ratios can be assigned to the smaller racial differences in school completion in 1980 than in 1940.

The influence of convergence in education is larger among younger black workers. While this attenuation with age partly reflects declining education coefficients with years of market experience, it principally results from an acceleration over time in black educational accomplishments. This last point is documented in Table 29, which lists the extent to which black male education rose relative to white education. Among older workers, black men narrowed their education disparity with whites by a year or two. In contrast, among men in their first five years of work, the education gap was four years smaller in 1980 than it was in 1940.

Race effects essentially adjust the impact of converging education levels for the fact that, historically, blacks received less income for each year of schooling than did whites. As a result, race effects tend to dampen main effects of education.[5] Because of this, equal increments in schooling over time would actually expand the racial wage gap. As an illustration, the narrowing of education differences failed to improve black-white wage ratios among older workers in Table 28.

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[5] In the regression accounting across the full forty-year period, race effects actually favor black men in the early experience intervals. This reflects the fact that in 1980 blacks actually had higher schooling coefficients than whites. We would view this result as an anomaly of the choice of weights and would assign it little meaning. For an analysis of racial differences and the full earnings distribution, see Smith and Welch (1977).

Table 29

CONVERGENCE IN EDUCATION BY RACE: 1940-1980

Experience Interval	Decline in Education Disparity
1-5	4.05
6-10	3.17
11-15	2.57
16-20	2.30
21-25	2.09
26-30	1.76
31-35	1.58
36-40	1.10

In addition to a smaller schooling disparity, education contributed to a closing of the wage gap principally through declining racial differences in the economic benefits of schooling (i.e., race-year effects). Since 1940, there has been a spectacular rise in the income that blacks receive from a year of schooling, to the point where young black men have achieved parity with whites. This phenomenon can largely be attributed to the improving relative quality of black schools. As a result, the long-term historical impact of investments in black schools--both in additional years of schooling and in the quality of that schooling--is enormous. Improvements in the quality of black schools increased black wages relative to whites from 11 to 38 percent, with younger blacks at the higher end of that range. Adding these quality effects to the gains achieved for quantity of schooling, black education is identified as the key factor elevating the long-run economic status of black men.

The year-effects column in Table 28 summarizes the impact on the racial wage gap of secular changes in the income benefits associated with schooling. Over the full forty years, these year-effects actually helped black men, reflecting the uncharacteristically high 1940 income returns from schooling, a depression year. The subsequently lower income rate of return to schooling actually narrowed the wage gap, because white men were affected more. However, compared with the other factors, secular swings in the market for skilled labor played a minor role in the long-term closing of the racial wage gap.

These swings were, however, far more important in shaping short-run changes across successive Census years. For example, the sharp drop in the economic benefits of schooling from the depression year 1940 to the more normal economic conditions of 1950 did contribute to the sharp rise in black incomes during the 1940s. Similarly, the improving labor market for college graduates between 1950 and 1970 raised white men's incomes more than black incomes. Finally, relative to whites, black men received positive but small benefits from the difficult labor market faced by college graduates during the 1970s.

PLACE OF RESIDENCE

Tables 30-32 summarize the regression accounting for our geographic variables. Following Sec. IV, two aspects of residential location are emphasized: whether one lives in the South or North and whether that place is rural or urban. In these tables, the SMSA and central-city regression variables are summed to create a single aggregate urban effect.

We separate the impact of place of residence on the racial wage gap into three components. The first component, migration's direct effect, is contained in Table 30.[6] By the direct effect, we mean the percentage increase in black-white wages that results from the movement of blacks from low-wage to higher-wage areas.[7] The year effects, listed in Table 31, monitor secular changes in the robustness of the

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[6] This direct effect of migration is obtained by adding the main and race terms in Eq. (2). Using Eqs. (2.i) and (2.iii), the sum of these two terms is $B_3 (X_1 - X_3) - B_2 (X_2 - X_4)$. $B_3 (X_1 - X_3)$ measures the black gain from migration (using base-period wage geographic wage differences); $B_4 (X_2 - X_4)$ is the corresponding gain to white migration.

[7] Note that the urban effect must be interpreted somewhat differently from the South-North distinction. The latter is largely immutable, so that all transitions reflect migration. In contrast, the trend towards urbanization reflects not only movement from rural to urban areas, but also the increasing urbanization of existing places.

Table 30

MIGRATION'S DIRECT EFFECT ON CLOSING RACIAL WAGE GAP PERCENTAGE INCREASES IN BLACK-WHITE WAGE RATIOS

Period	South	Urban	Total	South	Urban	Total
	Experience = 1-5 Years			Experience = 6-10 Years		
1970-1980	-0.24	-0.65	-0.89	-1.22	-0.42	-1.64
1960-1970	3.23	0.95	4.18	2.51	0.95	3.46
1950-1960	2.43	4.03	6.46	1.31	3.72	5.03
1940-1950	3.46	5.81	9.27	3.53	6.35	9.88
1940-1980	8.88	10.13	19.01	7.13	10.60	17.73
	Experience = 11-15 Years			Experience = 16-20 Years		
1970-1980	-0.91	-0.61	-1.52	-0.78	-0.30	-1.08
1960-1970	1.27	0.40	1.67	1.59	0.98	2.57
1950-1960	1.35	2.65	4.00	2.18	1.97	4.15
1940-1950	5.03	5.85	10.88	2.45	2.59	5.04
1940-1980	6.53	8.28	14.81	5.45	5.24	10.69
	Experience = 21-25 Years			Experience = 26-30 Years		
1970-1980	-.08	0.11	0.03	.08	0.03	0.05
1960-1970	2.59	1.69	2.32	2.08	2.01	5.09
1950-1960	4.15	2.52	4.42	0.82	1.51	2.33
1940-1950	5.04	2.05	5.41	1.09	1.49	3.18
1940-1980	6.18	6.05	12.03	5.54	5.04	10.58
	Experience = 31-35 Years			Experience = 36-40 Years		
1970-1980	0.71	0.49	1.25	1.39	0.96	2.35
1960-1970	2.60	1.05	3.65	1.09	0.77	1.86
1950-1960	1.37	2.08	3.45	1.63	3.40	5.03
1940-1950	1.37	2.95	4.32	0.59	1.20	1.79
1940-1980	5.94	6.57	12.51	4.74	6.33	11.07

Table 31

MIGRATION-YEAR EFFECT ON CLOSING RACIAL WAGE GAP:
PERCENTAGE INCREASES IN BLACK-WHITE WAGE RATIOS

Period	South	Urban	Total	South	Urban	Total
	Experience = 1-5 Years			Experience = 6-10 Years		
1970-1980	1.06	-1.15	-0.09	1.04	-1.35	-0.31
1960-1970	1.16	-0.93	0.23	0.70	-0.52	0.18
1950-1960	-0.72	-0.52	-1.24	-0.01	-1.76	-1.77
1940-1950	-2.93	0.52	-2.41	-1.09	-0.18	-1.22
1940-1980	-1.42	-2.10	-3.51	0.63	-3.18	-3.17
	Experience = 11-15 Years			Experience = 16-20 Years		
1970-1980	0.95	-1.33	-0.38	-0.85	-1.34	-2.19
1960-1970	0.28	-0.02	0.26	-0.14	-0.75	-0.89
1950-1960	-0.95	-2.53	-3.48	0.85	-1.88	-1.03
1940-1950	0.88	-0.79	0.09	-0.71	-1.42	-2.13
1940-1980	1.77	-4.64	-3.59	-0.84	-5.39	-6.24
	Experience = 21-25 Years			Experience = 26-30 Years		
1970-1980	0.33	-0.79	-0.46	0.16	-1.67	-1.83
1960-1970	-0.08	-1.02	-1.10	0.47	-0.90	-0.43
1950-1960	1.33	-2.52	-1.19	0.97	-1.49	-0.52
1940-1950	-1.06	-0.99	-2.05	-0.75	-0.77	-1.52
1940-1980	0.52	-5.30	-4.80	0.53	-4.83	-4.30
	Experience = 31-35 Years			Experience = 36-40 Years		
1970-1980	0.08	-1.90	-1.82	-0.37	-1.82	-2.19
1960-1970	1.21	-0.81	0.40	1.41	-1.66	-0.25
1950-1960	-0.33	-1.72	-2.05	1.42	-1.85	-0.43
1940-1950	-0.53	-1.10	-1.63	-3.47	0.20	-3.27
1940-1980	0.44	-5.53	-5.10	-0.27	-5.13	-6.14

Table 32

MIGRATION RACE-YEAR EFFECT ON CLOSING RACIAL WAGE GAP: PERCENTAGE INCREASES IN BLACK-WHITE WAGE RATIOS

Period	South	Urban	Total	South	Urban	Total
	Experience = 1-5 Years			Experience = 6-10 Years		
1970-1980	4.57	6.28	10.85	6.60	4.46	11.06
1960-1970	4.83	-3.20	1.63	0.72	-6.90	-6.18
1950-1960	3.67	-5.77	-9.44	-2.39	-2.60	-4.99
1940-1950	3.46	2.78	6.24	-0.57	5.11	5.68
1940-1980	9.19	0.09	9.28	5.50	0.07	5.57
	Experience = 11-15 Years			Experience = 16-20 Years		
1970-1980	7.70	4.90	12.60	3.10	5.15	8.25
1960-1970	-0.64	-10.48	-11.12	1.43	-8.56	-7.13
1950-1960	1.26	-2.18	-0.92	-3.18	-2.99	-6.17
1940-1950	-1.49	4.87	3.38	3.16	12.37	15.53
1940-1980	6.82	2.89	3.93	4.51	5.95	10.48
	Experience = 21-25 Years			Experience = 26-30 Years		
1970-1980	4.16	-2.14	2.02	7.82	-0.54	7.23
1960-1970	1.49	-9.20	-7.71	-0.81	-6.81	-7.62
1950-1960	1.80	3.92	5.72	2.11	-1.45	0.66
1940-1950	-3.62	4.12	-0.50	-1.42	8.04	6.62
1940-1980	3.84	-3.30	-0.54	7.69	-0.81	6.89
	Experience = 31-35 Years			Experience = 36-40 Years		
1970-1980	5.09	-1.28	3.81	2.47	2.82	5.29
1960-1970	1.72	-7.54	-5.82	0.63	-5.23	-4.60
1950-1960	-1.05	5.53	4.48	-6.29	3.38	-2.91
1940-1950	-1.43	2.35	0.92	7.86	4.21	12.07
1940-1980	4.33	-0.94	3.39	4.67	5.18	9.85

Southern economy and the economic health of America's urban areas. Finally, Table 32 summarizes the impact of the changing geographic structure on black-white male wages.

Migration was an important source of the long-run closing the racial wage gap. Southern black migration to the Northern cities increased black-white male wage ratios by 11 to 19 percent between 1940 and 1980, depending upon the specific experience level considered in Table 30. The movement North raised relative black incomes from 5 to 8 percent; slightly larger black wage gains are attributed to going to urban areas. When they left the rural areas of the South for the Northern cities, most blacks, of course, received both wage increases. Overall, the direct wage benefits from migration rival education's role in closing the racial income gap. Migration and schooling were the two key investments made by black men that drove their economic advances.

Table 30 indicates that the income gains from migration have diminished steadily over time. The largest benefits were concentrated between 1940 and 1960, diminished during the 1960s, and were no longer an important source of black economic improvement during the 1970s. Black people were essentially transformed from their rural Southern base to a predominately urban group during the twenty years after 1940. As a consequence, the positive black benefits from going to urban places were largely completed by 1960. The wage gains achieved from moving North would last another decade. Then too, with the end of the black migration North, these migration gains stopped.

The end of the great black movement North during the 1970s was a signal that the wage gains blacks could achieve from migration had largely been exploited. As urban and Southern racial wage ratios converged to the national norm, the large geographic wage disparities that produced black migration gains disappeared. Today, the racial wage gap is only 6 percent larger in the South than in the North, compared with the 20 percent differentials that prevailed before 1970. Consistent with this disappearance of geographic wage disparities, the era of black interregional migration, on a large scale, is over.

The year-effects in Table 31 capture the effects of differential wage growth among regions over time over the full forty-year period. The net impact is relatively small, producing a net loss of 3 to 6 percent in relative black incomes. Most of this loss is due to declining wages in central cities, a reflection of their long-term economic decline. The rising economic position of the South had little impact across the last four decades, partly because it was limited to the last 15 years. Table 31 indicated that there were positive wage benefits from this Southern expansion, especially among young black workers since 1960. But even this recent Southern growth raised black incomes, relative to white, by only 2 percent. Apparently, the economic revival of the South largely benefitted black and white men alike.

The final residential factor is the changing geographic structure of racial wages. The narrowing of the racial wage gap in the South was an important reason why blacks are catching up. The improving black situation in the South raised black-white male wages, at a nationwide level, by 4 to 10 percent between 1940 and 1980 (see Table 32). Virtually all of this improvement took place during the 1970s.[8]

Our summary points to two geographic sources of long-term relative black economic improvement: the direct wage gains received from migration, and the erosion of the Southern racial wage gap during the 1970s. Migration raised black wages 11 to 19 percent between 1940 and 1980; the closing of the Southern wage gap added another 4 to 10 percent. While the decline of central cities had negative consequences for blacks, and the resurgence in the Southern economy positive ones, the overall net effect of these regional developments was small.

CONCLUSION

In this section, we tried to quantify how much of the closing of the racial wage gap was due to black gains in education and its quality, and how much should be attributed to migration and the resurgence of the Southern economy. Our accounting summary was based on a statistical analysis of male weekly wages in the five micro data files from the 1940 to the 1980 Censuses. Across the full forty-year period, the two dimensions of education that closed the racial wage gap in a quantitatively significant way were the narrowing of education disparities between the races and the improving economic return to black schooling.

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[8] Because the relative racial wage structure in urban areas has not changed significantly over time, no systematic trend can be assigned to the urban variables in Table 32.

Approximately one-third of the total increase in black-white wage ratios can be assigned to the smaller racial differences in schooling completed in 1980 than in 1940.

In addition to narrowing the schooling gap, education closed the wage gap principally through declining racial differences in the economic benefits of schooling (i.e., race-year effects). Since 1940, with the improving quality of black schools, there has been a spectacular rise in the income that blacks receive from a year of schooling, to the point where young black men have achieved parity with whites. As a result, the long-term historical impact of investments in black schools--both in additional years of schooling and in the quality of that schooling--has been enormous. Improvements in the quality of black schools increased black wage, relative to whites from 11 to 38 percent, with younger blacks at the higher end of that range. Adding these quality effects to the gains achieved for quantity of schooling, black education is identified as the key factor elevating the long-run economic status of black men.

Compared with the other factors, secular swings in the market for skilled labor played a minor role in the long-term closing of the racial wage gap. These swings were, however, far more important in shaping short-run changes across successive Census years. For example, the improving labor market for college graduates between 1950 and 1970 raised white men's incomes more than black incomes because there were more white graduates. Finally, relative to whites, black men received marginal benefits from the difficult labor market faced by college graduates during the 1970s.

We also measured migration's direct-effect in this section, the percentage increase in black-white wages that results from the movement of blacks from low-wage to higher-wage areas. Migration was an important source of the long-run closing the racial wage gap. Southern black migration to the Northern cities increased black-white male wage ratios by 11 to 19 percent between 1940 and 1980. These gains were a reflection both of the movement from the South to the North as well as from rural to urban places. The direct wage benefits from migration rival convergence in education as a factor closing the racial income gap.

The income gains from migration, however, have diminished steadily over time and, by 1970, were exhausted. Blacks were essentially transformed from their rural Southern base into a predominately urban group during the twenty years after 1940. As a consequence, the positive black benefits from going to urban places were largely completed by 1960. The wage gains achieved from moving North lasted another decade.

The end of the great black movement North during the 1970s was a signal that the wage gains blacks could achieve from migration had largely been exploited. Today, the racial wage gap is only 6 percent larger in the South than in the North, compared with the 20 percent differentials that prevailed before 1970. Consistent with this disappearance of geographically based racial wage disparities, the era of black interregional migration, on a large scale, is over.

The net impact of differential economic growth among regions over time is relatively small, producing a net loss of 3 to 6 percent in relative black incomes. Most of this loss is due to declining wages in central cities, a reflection of their long-term economic decline. The rising economic position of the South had little impact across the last four decades, partly because it was limited to the last 15 years. But even this recent Southern growth raised black incomes, relative to white, by only 2 percent. Apparently, the economic revival of the South largely benefitted black and white men alike.

The narrowing of the racial wage gap in the South, however, was an important reason why blacks were catching up. The improving black situation in the South raised black-white male wages, at a nationwide level, by 4 to 10 percent between 1940 and 1980. Virtually all of this improvement took place during the 1970s. Migration raised black wages 11 to 19 percent between 1940 and 1980; the closing of the Southern wage gap added another 4 to 10 percent. Together, migration and schooling were the two key investments made by black men that accelerated their economic status.

VI. AGRICULTURE, LABOR FORCE PARTICIPATION, AND AFFIRMATIVE ACTION

In Sec. V we summarized the long-term effects of schooling and migration on the forty-year narrowing of the racial wage gap. This section examines three additional developments that are important for subperiods within this forty-year span.

The first concerns the rapid end of traditional Southern black agriculture. This demise, largely induced by a technological innovation--the mechanical cotton picker--may have produced the temporary decline in black incomes, especially among the young, between 1950 and 1960. In our view, these events transforming Southern black agriculture go a long way in explaining why the 1950s represent a departure from the long-term story of black economic progress.

The second event--taking place largely between 1970 and 1980--was the decline in labor force participation rates of less educated and low-income black males. Some observers offer these falling rates as the primary explanation for the sharp recent increase in relative wages among older black men who have more years of experience and have remained in the labor force.

The final factor concerns the impact of Affirmative Action--the principal legislative program for employment antidiscrimination and enforcement. Recently, many scholars have questioned whether Affirmative Action has achieved its primary aim of improving wages and employment for minorities.

AGRICULTURE

Forty years ago, the traditional system of sharecropping in Southern cotton dominated the economic activities of blacks. Table 33 lists the proportions of black and white male workers who were employed in farming from 1940 to 1980. Separate data are provided for Southern blacks. Changes were already under way that were ending the dependence of blacks on agriculture by the time our story starts in 1940. In 1920, half of all black men were employed in agriculture. Table 33 indicates that this fraction had shrunk to one-third by 1940; but even then, farming remained a dominant economic activity for blacks, especially in the South, where almost half of all black men worked on the farm.

Nowhere have the changes in the last forty years been more profound and dramatic than those in agriculture. Table 33 indicates that agricultural employment declined for both races, but the decline was far more rapid among black men. These changes were concentrated in the twenty years between 1940 and 1960. As a percent of the total work force, black agricultural employment fell by 70 percent between 1940 and 1960. By 1960, only one in ten black workers worked on the farm, with even lower rates among young black workers. By 1970, particularly among younger workers, black farm employment was a thing of the past. We can now safely describe the current economic status of blacks with little mention of agriculture.

Table 33 also indicates that migration to the North was not the sole reason for the decline in black agricultural employment. Between 1940 and 1960, as a percent of the black Southern workforce, farm employment fell by over 60 percent. By 1980, even in the South, very few blacks worked on farms.

The changes altering black agriculture affected not only the level of activity but also its structure. Following a short-lived and unsuccessful attempt at introducing a wage payment system, after the Civil War, sharecropping emerged as the prevalent arrangement for black Southern labor. Under this arrangement, a black family worked a plot of land and received a share of the crop as wages--a system that dominated the production of cotton for almost a century.[1]

The introduction of the mechanical cotton picker then revolutionized black agriculture. Table 34 shows that in 1950, over 90 percent of all cotton produced in the U.S. was picked by hand. Twelve years later, in 1962, over 70 percent was picked by machine.[2]

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[1] Some changes had taken place in cotton production during the first three decades of the twentieth century. In many locations tractors had replaced mules. But in large part, the labor-intensive sharecropping arrangements still prevailed until after the second World War.

[2] According to Beale, another important change that occurred during this period was the growth of cotton produced under irrigated conditions in the West. This released the production of cotton from the black belt.

Table 33

PERCENTAGE OF BLACK AND WHITE MALES IN FARMING

Age	1940	1950	1960	1970	1980
White Males					
16 to 25	22.2	15.1	8.3	4.5	3.8
26 to 35	15.4	10.1	5.1	2.9	2.4
36 to 45	16.8	11.8	6.4	3.9	2.8
46 to 55	22.1	15.0	8.6	5.0	3.6
56 to 64	28.1	18.9	11.0	7.3	4.9
Total	19.6	13.3	7.5	4.5	3.3
Black Males					
16 to 25	44.0	25.6	14.5	5.0	2.1
26 to 35	29.1	15.2	6.5	3.2	1.6
36 to 45	26.8	16.8	8.1	4.0	1.9
46 to 55	33.9	20.5	11.5	5.5	2.5
56 to 64	43.8	27.5	14.4	8.5	3.6
Total	34.3	19.9	10.4	4.9	2.1
Black Males in the South					
16 to 25	51.2	33.9	21.4	8.4	3.3
26 to 35	37.5	24.5	11.4	5.8	2.8
36 to 45	36.7	25.8	13.9	7.3	3.6
46 to 55	46.0	31.0	18.5	9.5	4.3
56 to 64	56.9	38.8	22.8	13.6	6.2
Total	44.0	29.7	17.1	8.5	3.7

This technological change reduced the demand for black labor in Southern agriculture and also put an end to tenant sharecropping, whereupon there was a switch of black farmers from tenants to hired wage labor. Beale states that for every 10 tenant workers displaced, three extra wage laborers had to be hired.[3]

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[3] See Beale, p. 195.

Table 34

PERCENTAGE OF COTTON HARVESTED BY MACHINE AND BY HAND

Area and Method	1950	1957	1962
All U.S.			
Machine	8	32	70
Hand	92	68	30
Texas and Oklahoma			
Machine	11	38	78
Hand	89	62	22
South except Texas and Oklahoma			
Machine	1	11	55
Hand	99	89	45

The impact is illustrated in Table 35. Between 1950 and 1960, there was a sharp drop from 16 percent to 6 percent in the fraction of blacks employed as farm owners and managers in the Census category that includes sharecroppers. In contrast, the proportion of men employed as wage labor increased. Whereas 32 percent of all black workers in agriculture were wage laborers in 1950, the proportion almost doubled to close to 60 percent by 1960--only ten years.

Within the relatively short time span of twenty years, revolutionary changes occurred in Southern agricultural production: Production was transformed from a relatively labor-intensive process to a capital-intensive one.[4] Output per man rose by 238 percent between 1950 and 1970, while total farm output rose by 36 percent.[5] Quoting USDA sources, Cogan states that the increase in output per man-hour between 1950 and 1970 exceeded the increase in the entire first half of this century.

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[4] There is some controversy about the origins of all this. Some claim it was due to growing demand for nonfarm labor, which raised the cost of men to machines. It was also spurred by labor-saving technological inventions, perhaps induced in turn by rising farm wages.

[5] These numbers are quoted from Cogan (1982).

Table 35

TYPE OF FARM WORK OF SOUTHERN BLACK MALES

(In percent)

Race and Type of Work	1940	1950	1960	1970	1980
Both white and black males					
Farm owners and managers	22.5	16.3	5.7	1.4	0.9
Farm wage laborers	15.6	9.5	10.2	7.0	2.6
Southern black males					
Farm owners and managers	51.0	55.1	33.4	16.5	23.4
Farm wage laborers	35.5	32.0	59.6	81.5	72.0

SOURCE: Decennial U.S. Census.

There is little question that there was a significant decline during the 1950s in the demand for a largely Southern black labor force in cotton. Many of these displaced Southern workers moved to the North. In our view, there were negative short-run consequences for blacks, but probably long-run benefits. In the short term, the decline in demand for black labor reduced black wages. This is the reason why the 1950s represent a temporary stall in the long-run improvement in black economic status. The long-run consequences were largely positive. Most directly, black men ended their dependence on low-wage Southern agriculture. They became more widely integrated into the American economic system. In addition, their children would no longer be limited by the low-quality schools and health facilities of the rural South.

THE DECLINING BLACK PARTICIPATION IN THE LABOR FORCE

In spite of the improvement in their labor market opportunities, an increasing number of black men have dropped out of the labor force in the middle of their careers, as can be seen in Table 36, which lists the percentages of black and white men who worked at least one week during the preceding year.

Table 36

PERCENTAGES OF BLACK AND WHITE MEN WHO WORKED AT LEAST ONE WEEK IN THE PRECEDING YEAR, BY EDUCATION LEVEL

	Years of Education					
Year	0-7	8-11	12	13-15	16+	All
			Blacks: Ages 36-45			
1980	74.5	81.9	87.2	90.4	93.4	85.1
1970	86.8	89.7	93.9	95.8	97.3	90.7
1960	89.8	91.4	93.8	95.0	98.8	91.4
1950	90.6	91.9	92.4	87.4	97.0	89.1
1940	90.2	88.9	88.9	96.3	93.6	90.0
			Blacks: Ages 46-54			
1980	66.7	76.4	83.4	86.2	91.9	97.9
1970	84.1	86.6	92.6	92.1	95.9	87.7
1960	88.0	90.6	93.3	92.3	97.7	89.4
1950	88.8	88.2	88.8	98.0	94.6	89.8
1940	88.4	86.9	86.1	94.3	98.7	88.3
			Whites: Ages 36-45			
1980	78.5	92.4	96.3	96.7	98.4	95.6
1970	89.1	96.1	98.1	97.9	99.0	96.9
1960	91.2	97.0	98.5	98.4	99.1	97.1
1950	91.0	95.1	95.9	96.6	96.7	94.7
1940	90.3	94.3	95.7	95.2	94.7	93.2
			Whites: Ages 46-54			
1980	75.9	87.7	93.0	93.5	96.5	91.2
1970	85.3	94.1	96.6	96.9	98.3	94.7
1960	90.1	95.5	96.9	96.9	98.0	95.0
1950	87.8	91.8	93.2	94.3	94.8	91.3
1940	90.3	93.6	94.9	95.0	95.9	90.2

For both races, those percentages had remained basically stable from 1940 to 1970. After 1970 they declined sharply, and at a much faster rate among black men. Table 37 lists changes in labor force participation that occurred between 1970 and 1980. Among men 36-45 years old, black participation rates fell by almost 6 percentage points, four times the decline among whites. The drop is even steeper among those 46-54 years old, and once again the fraction of black men who withdrew far exceeds that of white men. Among men 46-54 years old, black participation rates fell by 10 percentage points.

These tables illustrate another important dimension of this phenomenon: For both races, these declines are far steeper among the less educated. The concentration of these declines among blacks and among the less educated strongly suggests that the men who dropped out of the labor force had lower incomes than those who remained.[6]

Table 37

PERCENTAGE DECLINES IN LABOR FORCE PARTICIPATION,
BOTH RACES, 1970-1980

	Years of Education					
Race	0-7	8-11	12	13-15	16+	All
Ages 36-45						
Black	12.3	7.8	6.7	5.4	3.9	5.6
White	10.6	3.7	1.8	1.2	0.6	1.3
Ages 46-54						
Black	10.2	10.2	9.2	5.9	4.0	9.8
White	6.4	6.4	3.6	3.4	1.8	3.5

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[6]In a series of papers, Parsons (1979, 1980) has argued that the most likely cause of the declining participation rates arose from of a single program. According to Parsons, the Social Security Disability (SSD) program accounted for the bulk of the declining participation rates. For a contrary view, see Haverman and Wolfe (1984).

Because of this correlation with income, these declining participation rates could have important implications for trends in black-white wages during the 1970-1980 period. In particular, in a very important paper, Butler and Heckman (1977) have argued that these supply-side reductions in the relative number of working black men was an important cause of the post-1965 rise in the relative income of blacks.

The potential importance of their argument is illustrated in Table 38, which lists the black/white wage gap for men who had 25 to 40 years of labor force experience in 1980. In each of these work cohorts, there was a sharp jump in black/white wages as they accumulated an additional 10 years of work experience between 1970 and 1980. For example, among workers who had 26 to 30 years of labor force experience in 1970, black men earned 60.6 percent as much as whites. However, as we follow this work cohort over the next years, blacks end up earning 68.5 percent as much as whites in 1980.

Table 38

SELECTIVITY CORRECTIONS ON BLACK/WHITE MALE WAGE RATIOS

Years of Blacks' Labor Market Experience in 1980	Observed Black Wages as a Percent of White		1980 Selectivity Corrected Wages	
	1970[a]	1980	Partially Adjusted[b]	Fully Adjusted[c]
25-30	62.8	66.9	66.7	64.4
31-35	62.7	66.5	66.2	66.1
36-40	60.6	68.5	68.4	68.0

NOTE: The numbers in this table are derived from Table 2.

[a]The 1970 wage ratios are for the workforce in the 15-20, 21-25, and 26-30 experience intervals in 1970.

[b]Partially adjusted ratios adjust for falling participation rates only.

[c]Fully adjusted ratios also adjust for wage selectivity within education cells.

There are three components to the Butler-Heckman effect. The first two are variants of sample selectivity,[7] while the third involves the price adjustment to the falling pool of black laborers. The first dimension of selectivity results from the more rapid labor market withdrawals among blacks and among less educated workers. By itself, this selectivity implies that the average wage of those workers who remain in the labor force by 1980 will exceed observed wages in 1970.

The second aspect of selectivity occurs within education-race cells. If, within these cells, the wages of those who dropped out of the labor force are less than those who remain, observed wages of the remaining labor force will rise. Since both of these selectivity effects are stronger among black men, observed black-versus-white wages of the workforce will rise. The final component of the Butler-Heckman argument is the labor market price adjustment. As long as the relative demand for black labor is not completely elastic, declining relative numbers of black workers will raise relative black wages.

In this section, we report our research findings concerning the empirical importance of this argument. In doing so, we deal only with the selectivity components of the Butler-Heckman argument. For either race, the true wage can be written as follows:

$$(6.1) \qquad Y = \frac{\Sigma\delta_i \ \mathrm{LFPR}_i \ Y_i}{\Sigma\delta \ \mathrm{LFPR}_i}$$

where δ_i is the proportion of the population within education-group i, LFPR_i is the labor force participation rate within education-group i, LFPR is the aggregate labor force participation rate, and Y_i is the true within-education-group mean wage of the full sample (including those workers who dropped out). Y_i can be expressed as $Y_i = Y_i \ (\alpha + W_i(1 - \alpha))$, where Y_i is the observed wage of the labor force, α is the factor proportionality between the wages of dropouts and those who remain in the labor force, and W_i is the proportion of the original base-period labor force who are not dropouts.

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[7] We distinguish between the two types of sample selection because of the different corrections required to adjust for each.

In order to correct the 1980 labor force wages for the Butler-Heckman effect, two corrections are necessary. The first simply substitutes (in Eq. (6.1)) the 1970 labor force participation rates for the 1980 rates. The second correction adjusts for wage differences between labor force dropouts and stayer within education cells.

We estimated α (the ratio of the wages of dropouts to labor force stayers) using matched Current Population Survey (CPS) files for March in the years 1977-1983. Because of the sample rotation on the CPS, half of the March CPS samples are common between adjacent years. Within this matched sample of workers in year t, wages of those who dropped out of the labor force by year t + 1 were estimated relative to those who remained in the labor force in year t + 1.

The selectivity adjustments, performed sequentially, and the results of each step are presented in the final two columns in Table 38. To illustrate, in the first step, we adjust for the changing labor force participation rates. In this step, however, it is assumed that the within-education-cell mean wages of the labor force correctly measure the population means. In the second step, we adjust these within-cell mean wages using α, the estimated wages of dropouts to labor force stages.

Column three of Table 38 demonstrates that adjusting only for the more rapid decline in labor force participation rates among blacks and the less educated has a very modest impact on observed black-white wage ratios. But even after we adjust for the lower wages of dropouts in the final column, the total impact on black-white wages remains small. While the full adjustments account for 60 percent of the 1970-1980 discrepancy for the 26-30 years experience group, they explain less than 10 percent of the discrepancy for the other two experience groups.

An alternative method of evaluating the importance of these adjustments is to simulate the potential effects with alternative values of α. These simulations are presented in table 39.

Table 39 casts doubt that selective labor force dropouts are the full explanation for the rising relative incomes of older black men. Even when we use an α of .5, which we would regard as quite low, less

Table 39

POTENTIAL EFFECT OF SELECTIVITY ADJUSTMENTS

Years of Market Experience in 1980	Adjustment			
	.8	.5	.3	.1
26-30	66.1	65.0	64.3	63.5
31-35	65.6	64.5	63.8	63.0
36-40	67.7	66.5	65.7	64.8

than half the 1970-1980 gap is explained for these with 26-35 years of experience and less than a quarter for men in the 36-40 year group. It may be that the third component of the Butler-Heckman effect--the market price adjustment--is sufficiently strong to account for the remainder.

AFFIRMATIVE ACTION

The final issue we address is affirmative action[8], which still dominates the political debate concerning governmental labor market policy regarding race. Modern efforts at affirmative action begin with the 1964 Civil Rights Act, which was aimed at eliminating employment discrimination against protected minority groups. American blacks, who had endured centuries of blatant and intense discrimination, were the principal group that this legislation was meant to protect. In the last two decades, an extensive legal and federal administrative enforcement structure has been set up to enforce affirmative action. In particular, Title VII of the Civil Rights Act of 1964 established the Equal Employment Opportunity Commission (EEOC) to monitor compliance with its provisions. These provisions were quite broad, prohibiting discrimination on the basis of race and sex on all major terms of employment: pay, promotion, hiring, training, and termination.

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[8] This section is derived from Smith and Welch, "Affirmative Action and Labor Markets," 1984.

The second major federal enforcement agency was the Office of Federal Contract Compliance Program (OFCCP).[9] This agency was established by a 1965 Executive Order (No. 11246) that prohibited discrimination by race among government contractors (amended in 1967 by No. 11375 to include sex). Any federal contractor with a contract worth more than $50,000 and more than 50 employees was covered by these two executive orders. In May 1968, the OFCCP established a requirement for federal contractors to present a written "affirmative action" plan complete with goals and timetables for correcting deficiencies. The penalties for discriminatory behavior by federal contractors were potentially large. Violators ran the risk of permanent disbarment from government contracts. Other less severe, but more common, penalties included fines, back pay awards, and affirmative relief.

In this section, we summarize our research findings on the impact of affirmative action on labor market outcomes for blacks. Our summary highlights two important outcomes. The first deals with the employment side of work. The question asked here is whether affirmative action has significantly altered the types and locations of jobs that blacks were able to obtain. The second outcome deals with the wage side of work. Put simply, what impact has affirmative action had on the incomes of black men?

Employment Effects

To detect discriminatory behavior, EEOC has set up an extensive monitoring system. Since 1966, all firms in the private sector with 100 or more employees, and federal contractors with $50,000 contracts and with 50 or more employees, have been required to report annually on their total employment in each of nine broad occupation categories, reporting separately for each race-sex group. Firms are also required to indicate their federal contractor status on their EEO-1 reports.[10] These reports give enforcement agencies their initial opportunities to detect employment deficiencies.

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[9] Initially, the agency was called OFCC. In 1978, the OFCCP incorporated the OFCC as well as 11 other separate compliance agencies of the federal government.

[10] In addition to these EEO-1 reports, non-private-sector firms

Because of these reporting requirements, firms can be divided into three sectors: federal contractors, other EEOC reporting firms, and firms not covered by EEOC or OFCCP. It may be surprising to learn that only about half of the nongovernment, noneducation workforce is directly covered by affirmative action.[11] In the same vein, federal contractors employed 35 percent of all nongovernment, noneducational institution workers in 1980, and 70 percent of all EEOC-covered workers.

Because of these firm-size provisions for reporting, affirmative action coverage varies widely across industries. Coverage by EEOC is dictated largely by firm size, and the large establishments that characterize firms in the durable manufacturing sector almost guarantee universal reporting to the EEOC. For example, more than 80 percent of all workers are covered in the transportation equipment firms, textile mills, electrical industries, machinery, chemicals, and communications. On the other end of the spectrum, less than ten percent of all workers in retail trade, personnel services, entertainment, and construction, where small establishments are commonplace, are covered. A similar range exists in the percentage of workers employed in firms that are federal contractors.

We test for employment effects by measuring whether affirmative action has altered the location of black employment. If affirmative action is effective and is adequately enforced, minority representation should expand more among firms that are required to report to EEOC than among firms that are not. In addition, since federal contractors have more to lose, the greatest relative gains in employment and wages should occur among those EEO-1 reporting firms that are federal contractors.

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must submit similar reports for their occupation-employment distribution. Since 1973, all local and state government units with 15 or more employees have been required to file an EEO-4 report, and all elementary and secondary school systems are required to file an EEO-5 report. Annual reports are required for units with 100 or more employees, with less frequent filing for smaller units. Similarly, all postsecondary schools with 15 or more full-time students are required to file reports (EEO-6), beginning in 1975. Since our data files only contain EEO-1 reports, all employment comparisons in the next section eliminate those who are self-employed, and employees of the government or educational institutions.

[11] We estimate that half of all workers were in covered employment in both 1966 and 1980 (see Smith and Welch, 1984).

While such relocation of black workers should be discernible in total employment figures, the largest minority gains should appear within certain occupation groups. We anticipate that the greatest black gains should occur in professional and managerial jobs for firms that are reporting to EEOC. Once again, these changes should be even larger among those firms that are federal contractors.[12]

Table 40 lists the relative probability that blacks are employed in EEOC-covered employment. For example, employment in EEOC-covered firms would be race-neutral when, if 30 percent of all white men worked in covered firms, 30 percent of all black men did likewise.[13] If blacks and whites were equally likely to work in covered employment, the index in Table 40 would equal 100.

Table 40

REPRESENTATION OF BLACK MEN AND WOMEN IN COVERED
EEOC EMPLOYMENT COMPARED WITH WHITE MEN

(In percent)

Occupation	1966	1970	1974	1978	1980
Total employment					
Black men	91.8	112.5	123.1	128.4	126.4
Black women	91.5	118.7	141.2	144.8	154.4
Officials and managers					
Black men	53.3	80.0	104.0	101.1	106.8
Black women	61.4	10.5	142.3	178.5	154.4
Professionals and technicians					
Black men	62.8	82.9	137.8	117.2	97.6
Black women	74.5	63.4	84.3	104.3	118.7

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[12] Our EEO-1 data were derived from firm EEO-1 reports for 1966, 1970, 1974, 1978, and 1980. For each race-sex group, employers were asked to list the number of employees in nine broad occupation categories. For each sex, the numbers of employees are listed separately by race: white--not of Hispanic origin, black, Hispanic, Asian, and American Indian. Because we could not devise a sensible separation using Census occupational data, we combined two occupations ("professionals" and "technicians"). Thus, we use eight occupational groups in this research.

[13] More precisely, these numbers are the share of total black male employment in EEOC-covered employment divided by the share of all white

In 1966, 48 percent of all black men worked in covered employment. That number is 91.8 percent of the corresponding share for white men (52.7 percent). Both black men and black women in 1966 were 90 percent as likely as white men to be employed in EEOC covered firms. Within managerial and professional ranks, initial black representation in covered firms was even less. Black professionals and managers were anywhere from half to three quarters as likely to be employed in EEOC covered firms in 1966.

The basic test of affirmative action is its impacts on employment trends in minority representation over time. On these grounds, the message of Table 40 is unambiguous. For total numbers of workers, we are moving from a situation where black men were 10 percent less likely to work in EEOC covered firms (in 1966) to a situation where black men were 25 percent more likely to work in such firms by 1980. Compared with the 48 percent in 1966, fully 60 percent of all black men worked in covered firms by 1980.[14]

As large as those changes in total employment seem, they pale next to changes within the managerial and professional jobs. Black managers and professionals were half as likely as white managers and professionals to work in covered firms in 1966. By 1980, black managers and professionals were equally likely to be found in covered firms.[15]

The biggest employment changes clearly occurred between 1966 and 1970 (the first four years of reporting). Among black men, the trend continued at a diminished pace until 1974, and then apparently stabilized. The growth is greater for black women and persisted throughout the 1970s.

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men in covered EEOC employment. See Smith and Welch (1984), Table 6, pp. 280-281, for the original numbers.

[14] The total employment numbers for black women are even more striking. Starting from nearly the same base as black men, 48 percent of black women were in covered employment in 1966, but that figure reached 75 percent by 1980. Black females changed from being 10 percent less likely (than white men) to work in covered firms in 1966 to more than 50 percent more likely in 1980.

[15] Once again, black women managers represent an even more dramatic relocation of employment. From 40 percent less likely to work in covered firms, black women were 50 percent more likely to work in EEOC covered jobs by 1980.

Table 41

REPRESENTATION OF BLACK WORKERS COMPARED WITH WHITES IN FIRMS REPORTING TO EEOC, BY CONTRACTOR STATUS

Type of Firm	1970	1974	1978	1980
	All Employees			
Federal contractors				
Black men	105.6	118.3	125.7	123.5
Black women	88.2	112.1	121.9	134.5
Non-contractors				
Black men	130.8	132.4	137.0	137.7
Black women	202.1	224.3	216.0	218.0
	Officials and Managers			
Federal contractors				
Black men	72.4	100.8	101.8	106.0
Black women	76.8	113.4	155.9	136.9
Non-contractors				
Black men	100.0	112.9	99.0	109.4
Black women	180.2	227.6	248.5	209.4
	Professional and Technicians			
Federal contractors				
Black men	77.0	131.5	113.9	94.6
Black women	35.2	48.2	68.8	86.2

To summarize the evidence, in the fifteen years between 1966 and 1980, the employment picture has shifted from one where minority workers were less likely to be working for firms reporting to EEOC, to one where blacks were more likely than white men to work in these firms.[16] For black men, it is clear from Table 41 that the vast majority of the increased employment in covered firms was dominated by firms that were federal contractors. Virtually all increased black male employment by reporting firms was due to an increased representation of black men in firms with federal contracts.

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[16] Because EEOC tapes do not contain a flag indicating federal contractor status in 1966, comparisons of federal contractor and non-contractor firms are limited to the 1970-1980 period.

Wage Effects

The research summarized in the previous section demonstrated that affirmative action significantly altered the industrial location of minority employment. Blacks' jobs shifted toward firms that were covered by EEOC, and in particular toward firms with contracts from the federal government. The next question is: Have these shifts been accompanied by an improvement in the incomes of blacks?

It is instructive to place the size of any beneficial effects of affirmative action on black wages in historical perspective. The Civil Rights Act was passed in 1964 and the powers of two enforcement agencies, EEOC and OFCCP, were slowly put into place during the next decade. As a result, affirmative action is only relevant as an explanation for any post-1965 closing of the racial wage gap. Remembering this date helps avoid exaggerated claims about the labor market effects of affirmative action.

Table 42 helps illustrate our point. It lists the percentages by which the wage gap for black males narrowed between 1940 and 1960 and between 1960 and 1980.[17] Wage effects attributed to affirmative action must occur in the second twenty-year interval.[18] The lesson of Table 42 is clear. While some experience groups were favored in one twenty-year period and some in the other, the general pattern reveals that the racial wage gap narrowed as rapidly in the twenty years prior to 1960 (and before affirmative action) as during the twenty years afterwards. This suggests that the slowly evolving historical forces we have emphasized in this report--education and migration--were the primary determinants of the long-term black economic improvement. At best, affirmative action has marginally altered black wage gains about this long-term trend.

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[17] The numbers in Table 42 are derived from Table 9.

[18] This two-way equal division assigns too much weight to affirmative action, since the legislation was not effective in the first five years (1960-1965).

Table 42

PERCENTAGE NARROWING OF THE RACIAL WAGE GAP
BY YEARS OF SCHOOLING, 1940-1980

	Years of Experience				
Period	1-10	11-20	21-30	31-40	All
16+ Years of Schooling					
1940-1960	6.8	31.3	29.0	29.0	21.2
1960-1980	23.5	26.3	29.7	31.3	23.5
12 Years of Schooling					
1940-1960	3.3	15.7	34.5	53.3	15.8
1960-1980	13.1	15.3	13.7	23.1	17.4
8-11 Years of Schooling					
1940-1960	3.9	14.0	19.8	24.0	20.6
1960-1980	23.4	22.0	15.3	17.5	20.8

SOURCE: Table 9.

Examined with these more limited expectations, affirmative action did alter the pattern of minority wages. These patterns are isolated in Table 43, which lists black-white male wages at key points during affirmative action's existence.

The key impact on wages relates to timing. During the initial phases of affirmative action, there was a remarkable surge in incomes of young black males. The abrupt jump in relative wages for young black men from 1967-1968 to 1971-1972 in Table 43, especially for college graduates, is remarkable. According to our estimates, the racial wage gap for young college graduates jumped from 76 percent in 1967-1968 to complete wage parity by 1971-1972. A similar, but less sharp, surge exists among young high school students. In this group, black men earned 82 percent as much as comparable whites in 1967-1968; four years later, they earned 90 percent as much.

These black wage gains, however, did not prove to be permanent. By mid-1975-1976, Table 43 indicates that the racial wage gap had returned to more normal levels. Wages of young black college graduates were now 89 percent of those of whites, compared with the 1971-1972 peak of 101 percent. Similarly, young black high school graduates in 1975-1976 earned 83 percent as much as whites, a wage gap little different from the one that prevailed in 1967-1968. The timing pattern in Table 43 resembles a wage bubble, with a sharp increase in black male incomes from 1967 to 1972, followed by the bursting of the bubble during the next five years.

In our view, affirmative action is the most plausible cause of this wage bubble. First, the timing of the wage bubble is consistent with the timing of the employment effects. The large shift in black employment was concentrated during the years 1966-1970 and was largely completed by 1974. During these early years, EEOC-covered firms rapidly increased their demand for black workers, bidding up their wages. However, once the stock of black workers had reached its new equilibrium, this short-run demand increase was completed and wages returned to their long-run levels.[19]

Two other characteristics of this wage bubble argue that affirmative action was the principal cause. First, most of the new hiring takes place among younger workers, whose skills have not yet been matched closely to specific firms and industries. Consistent with this observation, almost all the black wage increases in Table 43 took place among younger workers. Second, in analyzing employment shifts, we found that the largest changes for black employment took place among the more skilled--in the managerial and professional ranks. Consistent with these employment shifts, the wage bubble was larger among college graduates.

This last observation also points to the final wage effect of affirmative action--its apparent pro-skill bias. The essential purpose of affirmative action is to increase employment of blacks in jobs where

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[19] These wage effects are consistent with black workers being relatively indifferent between covered and uncovered employment in the long run.

Table 43

WEEKLY WAGES OF BLACK MALES AS A PERCENT OF WHITE MALE WAGES, STRATIFIED BY SCHOOLING AND EXPERIENCE

	Years of Experience				
Year	1-5	6-10	11-20	21-30	31-40
All Schooling Classes					
1967-68	69.5	66.1	61.9	59.7	57.7
1971-72	82.1	72.0	66.1	62.5	64.0
1975-76	81.4	74.0	70.2	67.8	68.8
1979	84.2	76.5	72.0	69.3	64.1
16 Years of Schooling					
1967-68	75.7	66.5	59.8	55.3	53.7
1971-72	101.1	84.6	65.3	62.0	69.5
1975-76	89.1	84.1	72.7	67.2	70.9
1979	91.1	87.0	77.9	69.9	64.5
12 Years of Schooling					
1967-68	81.8	76.8	71.2	68.4	68.4
1971-72	90.7	82.3	76.2	71.0	73.8
1975-76	83.1	81.8	77.2	76.7	73.6
1979	84.2	80.4	80.2	78.2	77.8

SOURCE: Yearly Current Population Survey Public Use Tapes for 1967-68, 1971-72, 1975-76. Public Use Tapes of decennial Census were used for 1979.

they had previously been scarce. Since there is an abundance of blacks in low-skill jobs, the main pressures will be concentrated in the skilled jobs, where blacks had previously been scarce. Thus, if there is a story to be told of effects of affirmative action on relative wages of black men, its main plot must be one of nonneutrality with respect to education, with strong positive effects for college graduates and less strong, not necessarily positive, effects at lower educational levels. If we make end-point comparisons in Table 43, we find that this indeed is what occurred. For high school graduates, the final wage gap in 1979 appears consistent with long-term secular trends. For young college graduates, black male wages have increased at a more rapid rate than was historically the case.

This section has summarized the effects of affirmative action on the incomes of black men, and reached three basic conclusions.

First, affirmative action apparently had no significant long-run effect, either positive or negative, on the male racial wage gap. The relative rate of improvement in black incomes, after affirmative action was instituted, is consistent with the speed of improvement that occurred before it was instituted.

Second, affirmative action had a significant but short-lived positive effect on wages of younger black workers. Their wages increased dramatically from 1967 to 1972, but the gains eroded by 1977.

The final wage impact of affirmative action was a pro-skill bias. The positive wage effects of affirmative action on black males appear to be limited to young black college graduates.

CONCLUSIONS

This section has examined three developments that are important for closing the racial wage gap for certain subperiods between 1940 and 1980. The first concerns the rapid end of traditional Southern black agriculture. This demise, largely induced by a technological innovation--the mechanical cotton-picker--may have produced the temporary decline in black incomes, especially among the young, that occurred between 1950 and 1960. The second event--taking place largely between 1970 and 1980--was the decline in labor force participation rates of less-educated and low-income black males. These falling rates have been put forth as the primary explanation for the sharp recent increase in relative black wages among older men. The final factor concerns the impact of affirmative action--the principal legislative program for employment antidiscrimination and enforcement.

Forty years ago, the traditional system of sharecropping in Southern cotton dominated the economic activities of blacks. In 1940, one-third of all black men were still employed in agriculture. But the changes after 1940, and particularly between 1940 and 1960, were swift.

As a percentage of the total work force, black agricultural employment fell by 70 percent between 1940 and 1960. By 1960, only one in ten black workers worked on the farm, with rates even lower among young black workers. And ten years later, in 1970, black farm employment, particularly among younger workers, was a thing of the past.

The mechanical cotton picker revolutionized black agriculture. In 1950, over 90 percent of all U.S. cotton was picked by hand. Twelve years later, in 1962, over 70 percent was picked by machine.

These changes shrank the demand for black labor in Southern agriculture. They also ended the system of tenant sharecropping, a further consequence being a switch from tenants to hired wage labor. Because of the cotton picker, output per man rose by 238 percent between 1950 and 1970 in a period during which total farm output rose by 36 percent.

The second issue we dealt with in this section concerns the declining labor force participation rates of black men. In spite of the improvement in their labor market opportunities, an increasing number of black men have dropped out of the labor force in the middle of their careers. For both races, yearly labor force participation rates had remained basically stable from 1940 to 1970. After 1970, however, they declined sharply, and did so at a much more rapid rate among black men. For example, among men 36-45 years old, black participation rates fell by almost 6 percentage points, four times the decline observed among whites. The drop is even steeper among those 46-54 years old. Once again, the fraction of black men who left the labor force far exceeds that of white men. Among men 46-54 years old, black participation rates fell by 10 percentage points. In both races, the sharpest declines occurred among the less educated.

The concentration of these falling participation rates among blacks and among the less educated strongly suggests that the men who dropped out of the labor force had lower incomes than those who remained. Because of this correlation with income, these declining participation rates could have important implications for trends in black-white wages during the 1970-1980 period. In particular, some have argued that these supply-side reductions in the relative number of working black men was an important cause of the post-1965 rise in the relative income of blacks, at least among older workers. In a nutshell, the argument is that many low-income blacks left the labor market between 1970 and 1980, thereupon causing an artificial rise in the wages of the remaining black workforce.

Our results, however, cast doubts on this hypothesis. We adjusted observed 1980 black-white male wages for the more rapid declines in labor force participation among blacks and the less educated. We also adjusted for the fact that, within education groups, wages of dropouts are less than those who remained in the labor force. These adjustments explain a very minor part of the observed increase in black-white male wages between 1970 and 1980 among older men.

Affirmative action still dominates the political debate concerning governmental labor market policy regarding race. This debate began with the passage of the 1964 Civil Rights Act, which was aimed at eliminating employment discrimination against protected minority groups. American blacks, who had endured centuries of blatant and intense discrimination, were the principal group that this legislation was meant to protect. Since the Civil Rights Act prohibited discrimination on the basis of race and sex on all major terms of employment--pay, promotion, hiring, training, and termination--the protection was quite broad.

Two governmental agencies have been given the primary responsibility to enforce affirmative action. The Equal Employment Opportunity Commission (EEOC) was set up to monitor compliance with its provisions of the 1964 Civil Rights Act. All private sector firms with 100 or more employees were required to report to EEOC on the numbers and type of minority employment. The second major federal enforcement agency was the Office of Federal Contract Compliance Program (OFCCP). This agency was established by a 1965 Executive Order (No. 11246) and was given the primary responsibility of monitoring discrimination among government contractors.

Our research explored two questions about the possible labor market effects of affirmative action. The first was whether affirmative action significantly altered the type and location of jobs that blacks were able to obtain. The second outcome dealt with the wage side of work. Put simply, how has affirmative action affected the incomes of black men?

Because only firms with 100 or more employees must report to EEOC, affirmative action coverage varies widely across industries. Coverage is almost universal in the large-scale, durable goods manufacturing sector, but less than 10 percent of the workforce is covered in the retail trade, personnel services, and construction industries, where small establishments are common. As a result, firms can be divided into three sectors: (1) federal contractors, (2) other EEOC reporting firms, and (3) firms not covered by EEOC or OFCCP. It may be surprising to learn that only about half of the nongovernment, noneducation workforce is directly covered by affirmative action. In the same vein, federal contractors employed 35 percent of all nongovernment, noneducational institution workers in 1980, and 70 percent of all EEOC-covered workers.

We test for employment effects by measuring whether affirmative action has altered the location of black employment among these three sectors. If affirmative action is effective and is adequately enforced, minority representation should expand more among firms that are required to report to EEOC than among firms that are not. In addition, since federal contractors have more to lose, the greatest relative gains in employment and wages should occur among those EEO-1 reporting firms that are federal contractors.

While such relocation of black workers should occur in total employment, the largest minority gains should be detected within certain occupation groups. We anticipated that the greatest black gains should occur in professional and managerial jobs for firms that are reporting to EEOC. Once again, these changes should be even larger among those firms that are federal contractors.

Our statistical evidence strongly supports these hypotheses. Among the total number of workers, black men were 10 percent less likely to work in covered firms in 1966. By 1980, they were 25 percent more likely to work in EEOC-reporting firms. To put these changes in another way, less than half (48 percent) of black workers were employed in EEOC-covered firms in 1966. By 1980 that figure had risen to 60 percent.

The biggest employment increases occurred between 1966 and 1970 (the first four years of reporting). The upward trend established for black men in those four years, continued at a diminished pace until 1974, and then apparently stabilized. After 1974, there was little further change in the location of black employment by EEOC coverage. As large as those changes in total employment seem, they pale next to changes within the managerial and professional ranks. Black managers and professionals were half as likely as white managers and professionals to work in covered firms in 1966; by 1980 they were equally likely. Once again, this growth in black representation was concentrated in firms with federal contracts, and most of the change was completed by 1974.

Within the covered sector, black jobs shifted toward firms with contracts from the federal government. Between 1970 and 1980, black employment in nonfederal-contractor firms that reported to EEOC grew by 5 percent, but by more than 15 percent among federal contractors.

In summary, there is no question that affirmative action significantly shifted black male employments toward EEOC-covered firms and industries, and particularly into firms with federal contracts. Affirmative action also increased the representation of black male workers in managerial and professional jobs in covered firms.

Affirmative action's ability to raise the incomes of black men has proven to be far more difficult to achieve. We reached three basic conclusions on its effect on minority incomes. First, affirmative action apparently had no significant long-run effect, either positive or negative, on the male racial wage gap.

The general pattern is that racial wage gap narrowed as rapidly in the twenty years prior to 1960 (and before affirmative action) as during the twenty years afterward. This suggests that the slowly evolving historical forces we have emphasized in this report--education and migration--were the primary determinants of the long-term black economic improvement. At best, affirmative action has marginally altered black wage gains about this long-term trend.

Second, affirmative action did have a significant positive effect on the wages of younger black workers, an effect that was unfortunately short-lived. In the early stages of affirmative action, covered firms were desperately attempting to increase the number of black employees. To that end, they bid up the wages of young black workers, who accounted for most of the new hiring. Wages of young black workers increased dramatically from 1967 to 1972, but these wage gains were eroded by 1977.

For example, among new college graduates, black men earned 75 percent as much as whites in 1966; by 1972 there was complete racial wage parity. Similarly, the racial wage gap for new high school graduates narrowed from 80 percent to 90 percent over the same years. However, after covered firms reached their target number of black workers, these wage gains evaporated. In the five years after 1972, the wages of young black males fell by almost 10 percent relative to whites.

The final wage effect of affirmative action was a pro-skill bias. The permanent positive wage effects of affirmative action on black males appear to be limited to young black college graduates.

VII. GLIMPSES OF THE FUTURE

In this report, we have looked back upon a forty-year record of black economic progress. In doing so, we found and have told an optimistic story of a substantial narrowing of the racial wage gap. These last forty years have seen a partial American Resolution to Myrdal's American Dilemma. But what of the future? Will black progress continue at the pace of the last forty years or have we entered instead an era of black stagnation or even retrogression? This report, it is hoped, offers more informed answers to these questions. If we can identify why things happened, we will have a better grasp of what future progress will require.

History provides us with both optimistic and pessimistic glimpses of black America's future. Perhaps the most fundamental reason for optimism is the emerging and growing size of the black middle class and particularly the black elite. There are real questions about continued racial progress, which we document below, especially among the black poor; but the continued growth of the black elite is a safe bet. There are good reasons for our optimism here. Until recently, black college graduates were employed almost exclusively in government jobs. Now, they are moving in droves to the private sector. Although government work is safe and reliable, it places limits on the top rewards. The real prizes in our economic race are won in the private sector, and the black elite have now joined the game.

Second, there is now substantial evidence that the initial wage-gains made by blacks newly graduated from college will be maintained over their careers. Salary increases and promotions for the new black elite will be at least as rapid as for their white competitors. A new black leadership, fully a fifth of all black men, is being created that will be far different than the past reliance on the clergy and civil rights organizations. Finally, the new black middle class and elite will be able to perpetuate their achievements across future generations. For the first time, many blacks now have the financial ability to secure the American dream for their children.

Unfortunately, there are also reasons for concern about the future, especially for the still large black underclass. There was nothing magical about the long-run black progress documented in this report. It reflected hard-won achievements that enhanced black market skills, in the context of a forty-year period of rapid American economic growth. Impede further achievements and lose that growth, and black progress will stop.

One of the underlying causes of growth--migration--has already lost its clout. With the end of the substantial black wage disparities between the South and the North, the potential for further sizable black wage gains from migration is minute. There are good reasons as well to be concerned about continued improvement in the quality of black inner city schools in the North.

During the last decade, other disquieting signs cropped up that temper our optimism. In particular, four events have started to blur the translation of the still-improving black labor market skills into a higher standard of living for black America: the deterioration of the black family, the decline in American economic growth, rising black unemployment, and a confused and unfocused public policy debate on race.

These events raise questions mainly about the future of the underclass. In the remainder of this section, we spell out the reasons for our concern. To focus this discussion, Table 44 lists our estimates of the percentages of poor blacks and whites over four decades. These estimates are based on four alternative income concepts. Weekly wages mirror most closely trends in labor market skills. Besides wages, male earnings also incorporate variation in employment. The final two columns rely on family income to evaluate the poverty population. Our discussion of future concerns starts by looking at problems confronting the black family.

THE BLACK FAMILY

Our report has dealt exclusively with the changing labor market position of black men. The rapid economic advances we document among

Table 44

PERCENTAGES OF POOR BLACKS AND WHITES, AGES 26 TO 55, 1940-1980

Race and Census Year	Male Earnings: Weekly Wages	Male Earnings: Earnings	Family Income: All Families	Family Income: Intact Families
Blacks				
1980	20	24	30	15
1970	23	25	30	18
1960	37	40	39	33
1950	45	53	58	54
1940	73	78	75	75
Whites				
1980	12	11	10	7
1970	10	8	9	6
1960	13	13	12	10
1950	19	20	21	19
1940	30	33	29	28

black men raise questions of whether these gains were shared by other members of the black community. If anything, including black women in our study would simply have added to the optimistic tenor of this report. The labor market gains enjoyed by black women have been far more rapid than those of black men. Twenty-five years ago, the typical black woman earned half the wage of the typical working white woman. Today, racial wage parity prevails for women. For the black family, however, economic progress has been less satisfactory, especially in recent years.

Table 45 compares trends in the racial income gap using family income and male income. Whichever is used as the yardstick, the broad trends across the forty years support our conclusion that the racial income gap has narrowed substantially. In 1980, black family income

Table 45

BLACK FAMILY INCOME AS A PERCENT OF WHITE

(Age Groups 26-55)

	Year				
Type of Income	1940	1950	1960	1970	1980
Family income	41.1	48.9	56.3	61.2	62.5
Male earnings	44.0	60.7	58.1	66.9	72.2
Intact family income	41.6	55.2	61.4	71.4	82.0

was 63 percent as high as whites, compared with a 41 percent ratio in 1940. There were, however, very distinct trends within subperiods. Between 1940 and 1960, the black family income gap actually closed slightly faster than the male income gap. But trends after 1960, and particularly during the 1970s, were quite different. During these twenty years, black progress was half as rapid using family income as progress based on male incomes. Black family incomes as a percent of white barely increased in the 1970s, moving from 61.2 percent in 1970 to 62.5 percent in 1980.

These diverse recent trends are also reflected in the poverty statistics of Table 44. In 1940, three quarters of all black families were poor, similar to the male poverty rate. As it was for men, progress was dramatic over the next twenty years for black families, until only 40 percent of black families were poor in 1960. Between 1940 and 1960, reductions in black family poverty moved lockstep with declines in the number of black men who were poor. Not so after 1960. In the last twenty years, the percentage reduction in the proportion of black men in poverty was 70 percent larger than the percentage reduction in poor black families. In 1980, 30 percent of black families were poor, exactly the same rate as ten years earlier.

Why have these trends in black male and family income diverged so sharply in recent years? The answer lies in the deteriorating state of the black family. Table 46 lists the fraction of families that are female-headed. Black families have always been more likely than white to have female heads. In 1940, the figures were only 18 percent and 10 percent for blacks and whites, respectively. The striking news in Table 46 is the spectacular growth in the black percentage, particularly during the 1970s. By 1980, over 40 percent of black families were female-headed. Against that figure, the slight upward trend for whites pales in significance.

As the prototype husband-wife black families dissolve, the family incomes of the two newly constituted families will necessarily be smaller than that of the original intact family. This is particularly true for female-headed families, where the typically higher male income is lost and the ability of many women to compensate by working is constrained by their child-care responsibilities. For example, the average income in female-headed black families was 54 percent of average black family income in 1980. Furthermore, 56 percent of all black female-headed families were poor in 1980.

Because of the rapidly changing composition of black families, family income has become a very poor indicator of changes in black labor

Table 46

PERCENTAGE OF FAMILIES HEADED BY WOMEN

Year	Black	White
1980	40.3	11.7
1970	28.3	10.5
1960	21.7	8.1
1950	17.6	8.5
1940	17.9	10.1

market opportunities. These are more properly measured, as we do in this report, by individual incomes. The lack of recent improvement in black family incomes is a reflection of a growing problem in the black family, not of a decline in black labor market prospects.

The serious economic conditions faced by many black families, particularly those headed by women, can hide an often overlooked group of intact black families who are doing quite well. The final row of Table 45 lists the racial income gap for families who have both the husband and wife present. Of all the black demographic groups we studied in this report, black progress was most rapid in these families. By 1980, black intact families earned 82 percent as much as white families, more than double the income ratio of 1940. Moreover, this improvement has continued unabated during the last twenty years. By 1980, only 15 percent of such families were poor, compared to 18 percent 10 years earlier. The contrasting economic progress of intact and female-headed families is an excellent illustration of an increasingly segmented black experience--growing numbers of black families participating in an affluent America while distressing numbers are left behind in the worst ravages of poverty.

ECONOMIC GROWTH

Our term of reference throughout this report has been to evaluate black economic status relative to their contemporary whites. Over the past forty years, black men have clearly improved their position relative to whites. But incomes of both races have risen dramatically over this period. For example, inflation-adjusted incomes of white men expanded two-and-a-half-fold since 1940. Thus, the white men with whom we are comparing blacks in 1980 were far wealthier than those white men who represent our black contrast group in 1940. The sustained and rapid growth of the post-1940 American economy carried with it impressive benefits in material well-being that benefitted blacks and whites alike.

How much of the long-term reduction in black poverty reflects the improving relative skills of blacks and how much is due to post-1940 economic growth? One way of answering this question is to fix 1980 black earnings relative to whites at their 1940 levels. In that case, 46 percent of black working men would be poor today instead of the actual rate of 24 percent. Put another way, 45 percent of the reduction in black poverty since 1940 was due to economic growth and the remaining 55 percent to the expanded black labor market skills (relative to whites).[1] Economic growth and improving black labor market skills, principally through education and job training, go hand in hand as the key weapons that history identifies as eradicating black poverty.

The importance of economic growth has had, of course, a dark side lately. Between 1970 and 1980, real earnings of workers aged 26 to 54 grew by less than 3 percent, one-tenth of the growth achieved during the previous decade. The virtual absence of real income growth during the 1970s carried a terrible price in limiting reductions in the ranks of the black poor. Among those aged 26 to 55, Table 44 indicates that the proportion of the black male working poor fell by only one percentage point to 24 percent during the 1970s. If the 1970s had duplicated the 1960s in terms of rising incomes, that proportion would have fallen instead to 19 percent. The disappointing American economic performance during the 1970s had many sorry consequences; one of the cruelest was that the ranks of black poor was 25 percent larger than it would have been had economic growth continued unabated at the pace of the 1960s.

UNEMPLOYMENT

To this point, we have concentrated on the wage side of the labor market, but have said little about the ease of finding a job. Trends in wage rates are the primary focus of our research. But our portrait of the changing economic status of black men is incomplete without a brief summary of parallel trends in unemployment.

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[1] For this calculation, we used Denison's estimate that 25 percent of the growth in income per capita was due to education. Thus, in addition to the 40 percent directly attributed to narrowing racial skill differences, an additional 15 percent was assigned indirectly through education and impact on growth.

Table 47 lists unemployment rates by age in each Census year since 1950.[2] The rates for middle-aged white men--those aged 36 to 45--are probably the most useful for tracking aggregate business cycle conditions. Using these rates as the yardstick, economic conditions varied across our Census years. By far the best Census year was 1970, the final year of the sustained 1960s boom. Unemployment rates of middle-aged white and black men were at their lowest levels by far in 1970. At the other end of the spectrum, unemployment rates were highest in 1980, another reflection of the weak American economy during that decade.

Our concern centers on black-white differences. Table 47 documents the well-known fact that black unemployment rates exceed those of white men. Rates for both races have moved together over time, reflecting the overall level of economic activity, but black male rates have averaged about twice the white male rate. However, with the notable exception of young workers, there has been little of a long-term relative racial trend

Table 47

MALE UNEMPLOYMENT RATES BY RACE, 1950-1980

Race and Age	1950	1960	1970	1980
Black Men				
Ages				
16-64	7.3	8.9	6.7	12.6
36-45	6.5	7.8	4.6	8.5
16-25	10.2	13.4	13.7	22.0
White Men				
Ages				
16-64	4.0	4.5	3.6	5.8
36-45	3.0	3.2	2.2	3.7
16-25	7.0	8.5	7.5	10.9

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[2] 1940 is not included because it was so atypical, as the unemployment rates still mirrored great Depression conditions.

in the unemployment rates of blacks. However, nothing on the unemployment side of the labor market counteracts the sustained economic progress of blacks on the wage side of the labor market.

The exception refers to young blacks, among whom there has been a sustained rise in unemployment rates relative to young whites. For example, unemployment rates of blacks 16 to 25 years old were 1.45 times those of whites in 1950. By 1980, the black youth unemployment rate was 22 percent, more than double the rate for young white men.

The causes of this long-term deterioration in black youth unemployment are not well understood. According to Cogan, most of the decline before 1970 was due to the elimination of agriculture as the primary employer for young blacks. But the reasons for the post-1970 changes have remained elusive.[3]

Our basic conclusion, that unemployment trends did not contradict our message of long-term black economic progress, must be qualified during the 1970s. Since 1970, part, but not all, of the economic progress of blacks was offset by black employment problems. As an illustration, Table 44 indicates that the post-1970 decline in the number of black poor is larger when wages are our measuring rod than when we use earnings. Using wages, the proportion of black poor declined from 23 percent in 1970 to 20 percent in 1980. The less rapid black progress with earnings reflects the greater employment difficulties that some blacks encountered during the 1970s.

PUBLIC POLICY

The final source of our concern about continued black progress is a public policy debate on race that has lost sight of the aim of achieving long-run permanent reductions in black poverty. The three issues that dominated the recent political debate--the safety net, affirmative action, and busing--are a good illustration of the problem. All three issues have their merit, but if history provides useful lessons, no one of them alone can be the key to long-run reductions in black poverty.

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[3] The National Science Foundation has recently funded Rand to investigate this issue.

Spurred by expanding poverty rolls, the current debate about black poverty centers on Reagan Administration cutbacks in those social programs that all sides label "the safety net." Liberals complain that the safety net is full of holes and too many black families in need are slipping through. Conservatives contend that it is a web, not a net, that traps blacks into a self-perpetuating culture of poverty. These issues are important, but the focus is shortsighted. The singleminded concentration on short-run trends and remedies is making us lose sight of two more fundamental realities. First, there has been a significant long-term reduction in the number of black poor. Second, past and future long-run solutions to black poverty lie elsewhere.

The social programs that constitute the safety net were never meant to serve as a vehicle for long-term reductions in black poverty. As the label implies, they serve principally as a necessary cushion to prevent serious and often temporary economic hardship. But because the safety net does not expand skills or promote growth, it has not been and should not be the foundation of a long-run program to reduce black poverty.

That foundation should rely on factors that history points to as the proven eradicators of black poverty. What produced the black economic resurgence and the long-term decline in black poverty documented in this report? As with most public policy issues, there were several contributing factors. The movement of blacks from traditional Southern agricultural areas to the higher-wage Northern cities, the decline in discrimination in the South, and the safety net all deserve some credit. But the safety net cannot be the primary cause. Two-thirds of this forty-year reduction in black poverty took place before 1965, when the programs making up the safety net were first put into place. Furthermore, both its critics and defenders agree that the safety net is not a device for introducing blacks into the American economic mainstream.

The dominant explanation clearly lies elsewhere--in the American classroom and in the sustained and rapid economic growth between 1940 and 1970. Forty years ago, the typical black male entering the workforce had finished the sixth grade--four grades less than those new white workers with whom he had to compete. Today, the average new black worker is a high school graduate and trails his white competitor by less than a year of education. And this is only half the story. Dramatic improvements in the quality of black education increased the ability of blacks to translate their schooling into more dollars in the job market. Forty years ago, whites gained twice as much income as blacks from attending school for another year. Today, there is little racial difference in the economic benefits of schooling for young workers. Contemporary criticism of the quality of black schooling overlooks the historical situation, which was much worse. All this reasserts an old-fashioned truth that is now out of vogue--that the safest and surest route to permanent black economic mobility rests in additional education in a good school.

This central role of education raises our deepest real concerns about future prospects. The historical improvement in the quality of black schooling resulted largely from Southern black migration to the better schools of the North and from the overall rise in the quality of Southern schools. These trends having largely run their course, further improvement in black schooling depends critically on what takes place in urban black schools of the North. By concentrating on the merits of the safety net, all sides are running away from the real issue of school quality. Busing, the panacea of the 1970s, eventually confronted demographic realities and was rejected as a political solution by middle-class whites. Blacks should take little solace from the renewed surge of interest in excellence in schools, which so far has had a decidedly white-middle-America flavor. Where necessary, we should put patches in the safety net and remove its snares. But we may rest assured that until we deal with the problems in our nation's black schools, and until we restore the economic growth rates of the 1960s, further long-term reductions in black poverty will not materialize.

Table A.1

ESTIMATED ℓn WEEKLY WAGE REGRESSION COEFFICIENTS FOR BLACK MALES

("t" statistics in parentheses)

	Experience Interval							
Item	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40
				1940 Blacks				
Education	4.701	5.142	4.666	3.878	3.363	3.690	3.116	3.636
	(13.3)	(16.6)	(14.4)	(11.4)	(10.2)	(8.83)	(6.86)	(7.43)
Southern residence	-.2460	-.2581	-.2750	-.3000	-.2879	-.3326	-.3095	-.3205
	(6.46)	(8.62)	(10.4)	(11.2)	(11.0)	(10.7)	(9.01)	(8.37)
SMSA resident	.2557	.2811	.3531	.2782	.3692	.3352	.3690	.3357
	(7.65)	(9.38)	(12.2)	(8.63)	(11.5)	(8.53)	(8.87)	(7.17)
Central city resident	.1853	.1599	.0912	.0888	.0776	.0570	.0682	.0898
	(4.63)	(4.86)	(3.06)	(2.79)	(2.50)	(1.54)	(1.70)	(1.96)
Intercept	1.5712	1.8549	2.0331	2.2489	2.2587	2.3681	2.3570	2.2171
	(30.79)	(42.52)	(49.4)	(52.2)	(54.7)	(46.8)	(44.6)	(37.2)
R^2	.305	.337	.340	.294	.312	.303	.288	.324
				1950 Blacks				
Education	4.026	3.267	4.038	3.173	1.786	3.119	2.338	2.3758
	(5.81)	(5.85)	(8.92)	(6.69)	(3.67)	(5.38)	(4.05)	(3.32)
Southern residence	-.2621	-.2768	-.2728	-.2688	-.3771	-.3780	-.3466	-.2901
	(4.30)	(6.21)	(3.62)	(7.02)	(10.12)	(8.25)	(7.36)	(4.95)
SMSA resident	.2475	.3624	.3603	.4074	.3268	.4638	.3468	.4144
	(3.65)	(6.61)	(7.72)	(8.03)	(6.78)	(7.97)	(5.85)	(6.15)
Central city resident	.1161	.0315	.0336	.1004	.0340	.1059	.0557	.0277
	(1.64)	(0.60)	(0.70)	(.08)	(1.55)	(1.06)	(.98)	(.40)
Intercept	2.798	3.1002	3.1482	3.268	3.474	3.3319	3.3638	3.2374
	(28.16)	(44.3)	(50.4)	(51.5	(57.94)	(45.4)	(47.8	(37.4)
R^2	.278	.307	.349	.309	.320	.334	.290	.271
				1960 Blacks				
Education	5.814	5.315	4.658	4.706	4.057	3.996	3.179	2.810
	(13.5)	(18.9)	(19.3)	(21.1)	(16.9)	(15.0)	(11.4)	(8.12)
Southern residence	-.3371	-.3174	-.2839	-.2964	-.2976	-.3122	-.3747	-.3533
	(10.6)	(75.2)	(15.0)	(16.3)	(15.2)	(13.7)	(16.3)	(12.9)
SMSA resident	.0668	.2174	.2000	.2534	.2551	.2280	.3397	.3243
	(1.68)	(7.95)	(7.93)	(10.7)	(9.92)	(7.88)	(11.7)	(9.50)
Central city resident	.1532	.0628	.0903	.0635	.1061	.1351	.0871	.1437
	(4.07)	(2.54)	(4.01)	(3.03)	(4.60)	(5.08)	(3.9)	(4.54)
Intercept	3.0379	3.3772	3.5974	3.639	3.685	3.7409	3.724	3.7470
	(49.9)	(84.8)	(101.6)	(113.6)	(109.6)	(100.5)	(10.21)	(85.6)
R^2	.315	.331	.301	.343	.314	.297	.332	.315

Table A.1--continued

Item	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40
				Experience Interval				
				1970 Blacks				
Education	7.974	6.691	6.258	5.9617	5.360	4.237	3.554	3.697
	(16.8)	(22.3)	(22.5)	(22.1)	(20.9)	(16.2)	(13.1)	(12.5)
Southern residence	-.2089	-.2732	-.2835	-.2746	-.2714	-.3072	-.2929	-.2930
	(7.64)	(14.7)	(15.8)	(14.3)	(14.0)	(14.9)	(13.6)	(12.2)
SMSA resident	.0158	.0522	.0718	.1179	.1158	.1470	.1450	.2046
	(.45)	(2.09)	(2.95)	(4.56)	(4.44)	(5.41)	(5.11)	(6.69)
Central city resident	.0999	.0856	.0459	.0277	.0422	.0411	.0770	.0532
	(3.14)	(3.91)	(2.19)	(1.26)	(1.91)	(1.80)	(3.13)	(1.95)
Intercept	3.4511	3.8747	4.0587	4.1354	4.2389	4.2841	4.3273	4.2858
	(52.5)	(89.8)	(101.8)	(104.7)	(112.5)	(111.7)	(110.9)	(104.9)
R^2	.188	.222	.241	.248	.250	.223	.209	.233
				1980 Blacks				
Education	9.622	7.310	7.238	6.119	5.644	5.109	4.456	3.392
	(23.2)	(24.8)	(24.4)	(18.8)	(17.4)	(16.0)	(13.9)	(11.1)
Southern residence	-.0907	-.1183	-.1032	-.1751	-.1733	-.1614	-.1880	-.2287
	(4.75)	(8.00)	(6.54)	(9.23)	(8.64)	(7.22)	(7.83	(9.46)
SMSA resident	.1009	.1987	.2231	.2466	.2064	.1964	.1949	.3081
	(3.50)	(9.02)	(9.57)	(8.83)	(6.78)	(5.68)	(5.14)	(8.07)
Central city resident	-.0411	-.0910	-.1211	-.0927	-.1173	-.0870	-.0587	-.1158
	(1.79)	(5.23)	(6.70)	(4.33)	(5.15)	(3.36)	(2.07)	(3.95)
Intercept	3.7600	4.3265	4.5232	4.7551	4.9062	4.9339	4.9996	5.1207
	(62.6)	(98.3)	(103.8)	(97.6)	(103.0)	(98.9)	(96.6)	(105.3)
R^2	.173	.140	.146	.153	.141	.129	.122	.147

Table A.2

ESTIMATED ℓn WEEKLY WAGE REGRESSION COEFFICIENTS FOR WHITE MALES

("t" statistics in parentheses)

Item	Experience Interval 1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40
				1940 Whites				
Education	9.7791	8.924	8.758	8.6882	8.5190	8.5837	7.9264	8.0985
	(73.7)	(88.1)	(84.1)	(75.8)	(65.4)	(58.7)	(46.6)	(38.9)
Southern residence	-.0176	-.0933	-.1065	-.1055	-.1078	-.1150	-.1037	-.0950
	(1.96)	(13.3)	(14.5)	(12.8)	(11.5)	(10.6)	(8.18)	(6.17)
SMSA resident	.2886	.3047	.3112	.3324	.3652	.3375	.3428	.3714
	(28.2)	(40.0)	(39.8)	(38.0)	(37.1)	(30.1)	(26.0)	(23.4)
Central city resident	.0545	.0302	.0260	.0393	.0270	.0410	.0693	.0414
	(5.10)	(3.71)	(3.20)	(4.37)	(2.70)	(3.62)	(5.15)	(2.49)
Intercept	1.270	1.8251	2.0752	2.2239	2.3256	2.3835	2.4423	2.3747
	(75.5)	(139.2)	(156.5)	(155.9)	(148.3)	(134.2)	(120.4)	(99.4)
R^2	.364	.331	.312	.308	.290	.263	.230	.228
				1950 Whites				
Education	6.0900	5.511	6.2438	6.0525	6.0842	6.1669	5.8301	5.9784
	(23.6)	(33.1)	(39.2)	(37.4)	(33.4)	(30.7)	(24.6)	(22.4)
Southern residence	-.0800	-.1204	-.0790	-.1257	-.1385	-.1374	-.1181	-.1873
	(4.64)	(10.5)	(7.11)	(10.8)	(10.4)	(9.27)	(6.87)	(9.44)
SMSA resident	.2047	.2162	.2184	.2323	.2385	.2737	.3144	.3150
	(11.21)	(17.9)	(18.8)	(19.4)	(17.1)	(17.4)	(17.5)	(15.0)
Central city resident	.0125	.0090	.0013	-.0131	.0085	.0007	.0128	.0639
	(.62)	(0.70)	(0.10)	(1.00)	(0.56)	(0.05)	(0.65)	(2.79)
Intercept	2.7609	3.1898	3.2452	3.3744	3.4137	3.4458	3.4291	3.3862
	(80.4)	(143.6)	(152.8)	(160.6)	(148.24)	(134.5)	(120.6)	(105.6)
R^2	.230	.187	.203	.201	.193	.202	.179	.190
				1960 Whites				
Education	8.9349	6.9403	6.6488	6.5498	6.6382	6.6365	6.6155	6.1640
	(64.4)	(84.4)	(92.6)	(86.5)	(81.0)	(75.7)	(66.9)	(53.5)
Southern residence	-.0990	-.1208	-.1132	-.0940	-.0919	-.1076	-.1284	-.1429
	(11.7)	(21.4)	(21.5)	(17.4)	(15.7)	(16.9)	(17.7)	(16.9)
SMSA resident	.1756	.1814	.1962	.2248	.2326	.2604	.2960	.3344
	(19.7)	(30.8)	(36.5)	(41.1)	(39.6)	(40.6)	(39.6)	(38.1)
Central city resident	-.0127	-.0488	-.0745	-.0707	-.0696	-.0530	-.0504	-.0204
	(1.30)	(7.63)	(12.6)	(11.2)	(10.6)	(7.48)	(6.12)	(2.14)
Intercept	2.9247	3.5461	3.7819	3.8450	3.8672	3.8529	3.84057	3.8309
	(151.8)	(302.9)	(370.3)	(372.4)	(350.5)	(333.9)	(304.4)	(268.5)
R^2	.294	.256	.254	.232	.220	.219	.220	.210

Table A.2--continued

Item	Experience Interval							
	1-5	6-10	11-15	16-20	21-25	26-30	31-35	36-40
				1970 Whites				
Education	9.9911	7.439	7.1375	7.3830	7.0417	6.7442	6.6647	6.3588
	(79.3)	(92.0)	(90.1)	(92.8)	(88.6)	(81.9)	(74.2)	(64.7)
Southern residence	-.0571	-.0902	-.1001	-.1013	-.0957	-.0862	-.0797	-.0939
	(76.8)	(18.3)	(19.4)	(18.0)	(16.7)	(14.6)	(12.7)	(13.4)
SMSA resident	.1157	.1329	.1711	.1821	.1768	.2024	.1982	.2405
	(15.1)	(26.1)	(32.5)	(32.1)	(30.6)	(34.4)	(31.6)	(34.4)
Central city resident	-.0362	-.0505	-.0674	-.0767	-.0807	-.0598	-.0482	-.0493
	(44.0)	(9.00)	(11.1)	(11.5)	(12.1)	(8.86)	(6.88)	(6.36)
Intercept	3.2152	3.9884	4.17364	4.2212	4.2955	4.3280	4.31358	4.29124
	(373.3)	(339.2)	(363.7)	(362.8)	(375.2)	(376.4)	(353.3)	(329.3)
R^2	.284	.221	.226	.255	.228	.206	.188	.190
				1980 Whites				
Education	8.5293	6.1291	6.7751	6.944	6.9182	6.4535	6.1897	5.4767
	(81.7)	(77.7)	(83.7)	(76.8)	(71.6)	(65.8)	(63.9)	(51.9)
Southern residence	-.0178	-.0505	-.0596	-.0602	-.0785	-.0944	-.0756	-.0775
	(5.40)	(11.2)	(12.1)	(10.6)	(12.6)	(14.1))	(11.0)	(10.5)
SMSA resident	.0273	.1315	.1798	.1980	.2059	.2017	.2048	.2105
	(11.5)	(26.2)	(32.8)	(31.6)	(30.1)	(27.2)	(27.1)	(26.4)
Central city resident	-.0615	-.0990	-.1186	-.1278	-.1168	-.1102	-.1055	-.0907
	(10.5)	(19.6)	(21.2)	(19.3)	(16.0)	(14.3)	(13.7)	(11.2)
Intercept	4.07954	4.7198	4.8011	4.8965	4.9561	5.0288	5.0685	5.1198
	(275.4)	(399.1)	(386.1)	(356.7)	(343.1)	(340.4)	(353.5)	(342.6)
R^2	.244	.126	.161	.173	.176	.167	.159	.125

Table A.3

AVERAGE PERCENTAGE INCREASE IN BLACK/WHITE WEEKLY WAGE RATIOS, 1940-1950: ACCOUNTING ACCORDING TO REGRESSION ESTIMATES BY WORK EXPERIENCE CLASS

	Interaction Effects				
Variable	Main Effects	Race	Year	Race X Year	Total
1-5 Years of Work Experience					
Accounting summary					
Year of schooling	.1260	-.0957	.1218	.2361	.3881
Southern residence	.0021	.0325	-.0293	.0346	.0398
SMSA residence	.0354	-.0063	.0072	.0356	.0718
SMSA central city	.0085	.0205	-.0022	-.0078	.0190
Experience	.0131	-.0070	-.0057	.0370	.0373
Total	.1850	-.0561	.0917	.3354	.5561
Residual = -.2631					
Actual = .2930					
6-10 Years of Work Experience					
Accounting summary					
Year of schooling	.0678	-.0450	.1128	.1178	.2535
Southern residence	.0133	.0220	-.0109	.0057	.0300
SMSA residence	.0424	-.0035	.0011	.0951	.1351
SMSA central city	.0055	.0191	-.0029	-.0440	-.0223
Experience	.0006	-.0015	.0000	.0078	.0069
Total	.1295	-.0088	.1001	.1824	.4032
Residual = -.1190					
Actual = .2842					
11-15 Years of Work Experience					
Accounting summary					
Year of schooling	.0594	-.0586	.0780	.1453	.2242
Southern residence	.0200	.0303	.0088	-.0149	.0441
SMSA residence	.0405	.0055	-.0029	.0625	.1055
SMSA central city	.0041	.0084	-.0047	-.0138	-.0060
Experience	-.0049	.0026	.0023	-.0286	-.0286
Total	.1191	-.0118	.0815	.1505	.3393
Residual = -.0549					
Actual = .2843					
16-20 Years of Work Experience					
Accounting summary					
Year of schooling	.0442	-.0605	.0796	.1426	.2058
Southern residence	.0090	.0155	-.0071	.0316	.0490
SMSA residence	.0229	-.0023	-.0043	.1420	.1584
SMSA central city	.0034	.0019	-.0099	-.0183	-.0229
Experience	.0017	-.0034	-.0018	-.0287	-.0322
Total	.0813	-.0488	.0565	.2691	.3580
Residual = -.1308					
Actual = .2272					

Table A.3--continued

		Interaction Effects			
Variable	Main Effects	Race	Year	Race X Year	Total
21-25 Years of Work Experience					
Accounting summary					
Year of schooling	.0050	-.0331	.0844	.0500	.1063
Southern residence	.0096	.0109	-.0106	-.0362	-.0262
SMSA residence	.0302	.0002	.0066	.0524	.0761
SMSA central city	.0023	.0015	-.0033	-.0112	-.0107
Experience	.0005	.0022	-.0009	-.0112	-.0095
Total	.0476	-.0183	.0630	.0438	.1360
Residual = .1245					
Actual = .2605					
26-30 Years of Work Experience					
Accounting summary					
Year of schooling	-.0026	-.0196	.0863	.1083	.1724
Southern residence	.0094	.0075	-.0075	-.0142	-.0047
SMSA residence	.0130	.0000	-.0013	.1129	.1246
SMSA central city	.0020	-.0001	-.0064	-.0325	-.0370
Experience	-.0003	.0044	.0011	.0566	.0618
Total	.0215	-.0078	.0722	.2311	.3170
Residual = -.0984					
Actual = .2186					
31-35 Years of Work Experience					
Accounting summary					
Year of schooling	.0127	-.0265	.0719	.0744	.1326
Southern residence	.0057	.0060	-.0053	-.0143	-.0079
SMSA residence	.0214	.0004	-.0009	.0037	.0246
SMSA central city	.0078	-.0001	-.0101	.0198	.0175
Experience	-.0001	.0015	-.0004	.0480	.0489
Total	.0475	-.0087	.0552	.1317	.2156
Residual = .0201					
Actual = .2357					
36-40 Years of Work Experience					
Accounting summary					
Year of schooling	-.0245	-.0068	.0780	.0441	.0907
Southern residence	.0039	.0022	-.0347	.0786	.0499
SMSA residence	.0105	.0000	-.0003	.0745	.0847
SMSA central city	.0013	.0002	.0023	-.0324	-.0286
Experience	-.0003	.0002	.0014	-.0229	-.0216
Total	-.0091	-.0042	.0466	.1419	.1751
Residual = .0089					
Actual = .1840					

Table A.4

AVERAGE PERCENTAGE INCREASE IN BLACK/WHITE WEEKLY WAGE RATIOS, 1950-1960: ACCOUNTING ACCORDING TO REGRESSION ESTIMATES BY WORK EXPERIENCE CLASS

		Interaction Effects			
Variable	Main Effects	Race	Year	Race X Year	Total
1-5 Years of Work Experience					
Accounting summary					
Year of schooling	.0614	-.0405	-.0652	-.1036	-.1479
Southern residence	.0075	.0168	-.0072	-.0367	-.0195
SMSA residence	.0183	.0045	-.0001	-.0873	-.0647
SMSA central city	.0019	.0156	-.0051	.0296	.0420
Age	.0347	-.0052	.0005	.0073	.0372
Total	.1238	-.0089	-.0771	-.1907	-.1529
Residual = .0757					
Actual = -.0772					
6-10 Years of Work Experience					
Accounting summary					
Year of schooling	.0510	-.0456	-.0340	.0598	.0318
Southern residence	.0102	.0129	-.0001	-.0239	-.0009
SMSA residence	.0180	.0154	-.0025	-.0733	-.0424
SMSA central city	.0011	.0027	-.0151	.0473	.0360
Age	.0015	-.0001	.0012	-.0107	-.0082
Total	.0819	-.0142	-.0550	-.0008	.0163
Residual = -.0797					
Actual = -.0634					
11-15 Years of Work Experience					
Accounting summary					
Year of schooling	.0440	-.0344	-.0097	.0200	.0198
Southern residence	.0034	.0081	-.0095	.0126	.0146
SMSA residence	.0129	.0098	-.0020	-.0957	-.0750
SMSA central city	-.0002	.0040	-.0233	.0739	.0544
Age	.0010	-.0037	.0001	.0549	.0523
Total	.0611	-.0163	-.0444	.0656	.0661
Residual = -.0874					
Actual = -.0213					
16-20 Years of Work Experience					
Accounting summary					
Year of schooling	.0281	-.0353	-.0127	.0884	.0685
Southern residence	.0105	.0113	.0085	-.0318	-.0015
SMSA residence	.0101	.0104	-.0006	-.0994	-.0796
SMSA central city	-.0017	.0009	-.0182	.0695	.0506
Age	-.0007	.0019	.0005	.0603	.0609
Total	.0463	-.0108	-.0236	.0870	.0989
Residual = -.1004					
Actual = -.0015					

Table A.4--continued

	Interaction Effects				
Variable	Main Effects	Race	Year	Race X Year	Total
21-25 Years of Work Experience					
Accounting summary					
Year of schooling	.0408	-.0693	-.0155	.1371	.0931
Southern residence	.0084	.0168	.0133	.0180	.0566
SMSA residence	.0094	.0056	-.0005	-.0452	-.0307
SMSA central city	.0011	.0029	-.0245	.0844	.0639
Age	.0001	.0040	.0004	.0525	.0570
Total	.0598	-.0399	-.0269	.2469	.2399
Residual = -.2417					
Actual = -.0019					
26-30 Years of Work Experience					
Accounting summary					
Year of schooling	.0234	-.0409	-.0150	.0293	-.0031
Southern residence	.0012	.0072	.0097	.0211	.0392
SMSA residence	.0099	.0105	-.0008	-.1429	-.1232
SMSA central city	.0001	-.0054	-.0141	.1284	.1091
Age	.0000	-.0007	.0004	-.0106	-.0109
Total	.0295	-.0292	-.0198	.0253	.0111
Residual = .0018					
Actual = .0129					
31-35 Years of Work Experience					
Accounting summary					
Year of schooling	.0095	-.0324	-.0257	.0036	-.0450
Southern residence	.0058	.0089	-.0033	-.0105	.0009
SMSA residence	.0157	.0017	-.0015	.0073	.0232
SMSA central city	.0009	.0025	-.0157	.0480	.0357
Age	.0006	-.0035	.0000	.0386	.0357
Total	.0325	-.0229	-.0461	.0871	.0506
Residual = -.0510					
Actual = -.0005					
36-40 Years of Work Experience					
Accounting summary					
Year of schooling	.0281	-.0350	-.0060	.0152	.0024
Southern residence	.0106	.0058	.0142	-.0629	-.0323
SMSA residence	.0225	.0075	.0013	-.0684	-.0372
SMSA central city	.0086	-.0046	-.0198	.1022	.0864
Age	.0005	-.0000	-.0001	-.0077	-.0072
Total	.0703	-.0262	-.0014	-.0216	.0121
Residual = .0649					
Actual = .0770					

Table A.5

AVERAGE PERCENTAGE INCREASE IN BLACK/WHITE WEEKLY WAGE RATIOS, 1960-1970: ACCOUNTING ACCORDING TO REGRESSION ESTIMATES BY WORK EXPERIENCE CLASS

Variable	Main Effects	Interaction Effects			
		Race	Year	Race X Year	Total
	1-5 Years of Work Experience				
Accounting summary					
Year of schooling	.0681	-.0484	-.0162	.1253	.1289
Southern residence	.0097	.0226	.0116	.0483	.0923
SMSA residence	.0070	-.0104	-.0026	-.0153	-.0213
SMSA central city	-.0010	.0138	-.0067	-.0167	-.0106
Age	.0203	-.0024	-.0006	-.0552	-.0379
Total	.1041	-.0247	-.0144	.0865	.1515
Residual = .1227					
Actual = .2742					
	6-10 Years of Work Experience				
Accounting summary					
Year of schooling	.0637	-.0233	-.0073	.0973	.1305
Southern residence	.0109	.0142	.0070	.0072	.0392
SMSA residence	.0043	.0019	-.0046	-.0837	-.0820
SMSA central city	-.0041	.0074	-.0006	.0147	.0174
Age	-.0048	.0014	.0003	.0241	.0210
Total	.0701	.0016	-.0052	.0596	.1260
Residual = .0552					
Actual = .1813					
	11-15 Years of Work Experience				
Accounting summary					
Year of schooling	.0569	-.0301	-.0075	.1198	.1391
Southern residence	.0070	.0057	.0028	-.0064	.0091
SMSA residence	.0041	.0001	-.0028	-.0744	-.0730
SMSA central city	-.0036	.0034	.0026	-.0304	-.0279
Age	.0007	-.0001	.0000	-.0029	-.0023
Total	.0651	-.0209	-.0049	.0057	.0449
Residual = .0696					
Actual = .1145					
	16-20 Years of Work Experience				
Accounting summary					
Year of schooling	.0467	-.0324	-.0153	.0437	.0427
Southern residence	.0065	.0094	-.0014	.0143	.0287
SMSA residence	.0080	.0015	-.0052	-.0678	-.0635
SMSA central city	-.0050	.0053	-.0023	-.0178	-.0198
Age	.0002	-.0005	.0001	-.0221	-.0223
Total	.0564	-.0168	-.0242	-.0497	-.0342
Residual = .1206					
Actual = .0863					

Table A.5--continued

		Interaction Effects			
Variable	Main Effects	Race	Year	Race X Year	Total
21-25 Years of Work Experience					
Accounting summary					
Year of schooling	.0503	-.0458	-.0082	.0878	.0841
Southern residence	.0067	.0102	-.0008	.0149	.0309
SMSA residence	.0040	-.0010	-.0060	-.0607	-.0618
SMSA central city	-.0043	.0056	-.0042	-.0313	-.0343
Age	-.0001	.0000	-.0001	-.0497	-.0500
Total	.0565	-.0291	-.0194	-.0391	-.0310
Residual = .1252					
Actual = .0943					
26-30 Years of Work Experience					
Accounting summary					
Year of schooling	.0565	-.0481	-.0025	.0121	.0179
Southern residence	.0116	.0192	.0047	-.0081	.0273
SMSA residence	.0141	-.0028	-.0065	-.0166	-.0117
SMSA central city	-.0057	.0145	-.0025	-.0515	-.0453
Age	-.0001	.0009	-.0001	.0293	.0300
Total	.0764	-.0163	-.0069	-.0349	.0183
Residual = .0682					
Actual = .0864					
31-35 Years of Work Experience					
Accounting summary					
Year of schooling	.0390	-.0601	-.0009	.0286	.0067
Southern residence	.0088	.0172	.0121	.0172	.0553
SMSA residence	.0028	.0024	-.0089	-.0683	-.0720
SMSA central city	-.0045	.0098	.0008	-.0071	-.0011
Age	.0003	.0010	.0003	-.0081	-.0072
Total	.0458	-.0298	.0034	-.0377	-.0182
Residual = .1254					
Actual = .1072					
36-40 Years of Work Experience					
Accounting summary					
Year of schooling	.0162	-.0520	-.0057	.0529	.0113
Southern residence	.0046	.0063	.0141	.0063	.0313
SMSA residence	.0010	-.0004	-.0075	-.0176	-.0245
SMSA central city	-.0016	.0087	-.0091	-.0347	-.0367
Age	-.0003	.0006	-.0002	.0075	.0076
Total	.0199	-.0368	-.0084	.0143	-.0111
Residual = .0785					
Actual = .0675					

Table A.6

AVERAGE PERCENTAGE INCREASE IN BLACK/WHITE WEEKLY WAGE RATIOS, 1970-1980: ACCOUNTING ACCORDING TO REGRESSION ESTIMATES BY WORK EXPERIENCE CLASS

		Interaction Effects			
Variable	Main Effects	Race	Year	Race X Year	Total
1-5 Years of Work Experience					
Accounting summary					
Year of schooling	.1004	-.0234	.0077	.3888	.4735
Southern residence	.0004	-.0028	.0106	.0457	.0539
SMSA residence	.0053	.0155	-.0044	.1304	.1159
SMSA central city	.0002	.0035	-.0071	.0676	-.0709
Age	-.0031	.0006	.0005	.0648	.0618
Total	.1033	-.0376	.0064	.5621	.6341
Residual = -.5555					
Actual = .0786					
6-10 Years of Work Experience					
Accounting summary					
Year of schooling	.0420	-.0112	.0117	.2429	.2855
Southern residence	-.0030	-.0092	.0104	.0660	.0642
SMSA residence	.0019	-.0065	-.0002	.1181	.1133
SMSA central city	.0036	-.0032	-.0133	-.0735	-.0864
Age	.0022	-.0005	-.0001	.0022	.0038
Total	.0467	-.0305	.0085	.3556	.3804
Residual = -.2796					
Actual = .1008					
11-15 Years of Work Experience					
Accounting summary					
Year of schooling	.0230	-.0140	.0044	.1661	.1795
Southern residence	-.0020	-.0071	.0095	.0770	.0774
SMSA residence	-.0009	-.0074	.0009	.1136	.1062
SMSA central city	.0059	-.0037	-.0142	-.0646	-.0766
Age	.0000	.0004	.0000	-.0051	.0046
Total	.0261	-.0319	.0007	.2871	.2819
Residual = -.1630					
Actual = .1189					
16-20 Years of Work Experience					
Accounting summary					
Year of schooling	.0441	-.0216	.0055	.0707	.0986
Southern residence	-.0007	-.0071	.0085	.0310	.0317
SMSA residence	-.0011	-.0043	.0018	.0898	.0864
SMSA central city	.0068	-.0044	-.0152	-.0383	-.0511
Age	-.0005	-.0007	-.0003	.0094	.0079
Total	.0486	-.0380	.0003	.1626	.1735
Residual = -.0556					
Actual = .1179					

Table A.6--continued

Variable	Main Effects	Interaction Effects			Total
		Race	Year	Race X Year	
21-25 Years of Work Experience					
Accounting summary					
Year of schooling	.0424	-.0280	.0018	.0465	.0627
Southern residence	.0020	-.0028	.0033	.0416	.0441
SMSA residence	.0040	-.0050	.0038	.0498	.0525
SMSA central city	.0041	-.0020	-.0117	-.0712	-.0808
Age	-.0004	.0000	.0001	-.0041	-.0035
Total	.0530	-.0378	-.0028	.0625	.0750
Residual = .0068					
Actual = .0817					
26-30 Years of Work Experience					
Accounting summary					
Year of schooling	.0375	-.0468	.0052	.1267	.1225
Southern residence	.0025	-.0033	-.0016	.0782	.0758
SMSA residence	.0026	-.0046	-.0001	.0406	.0385
SMSA central city	.0025	-.0002	-.0166	-.0465	-.0607
Age	-.0002	-.0002	-.0000	-.0235	-.0236
Total	.0453	-.0552	-.0131	.1465	.1525
Residual = -.0511					
Actual = .1014					
31-35 Years of Work Experience					
Accounting summary					
Year of schooling	.0425	-.0596	.0093	.1392	.1315
Southern residence	.0038	.0033	.0008	.0509	.0588
SMSA residence	.0068	-.0065	.0008	.0357	.0369
SMSA central city	-.0004	.0050	-.0198	-.0485	-.0637
Age	-.0002	-.0009	-.0002	.0156	.0142
Total	.0525	-.0587	-.0090	.1928	.1777
Residual = -.0744					
Actual = .1033					
36-40 Years of Work Experience					
Accounting summary					
Year of schooling	.0408	-.0451	.0203	.0539	.0699
Southern residence	.0059	.0080	.0037	.0247	.0424
SMSA residence	.0093	-.0046	-.0036	.1084	.1095
SMSA central city	-.0018	.0067	-.0146	-.0802	-.0898
Age	-.0003	.0001	-.0001	-.0149	-.0146
Total	.0546	-.0349	.0058	.0919	.1174
Residual = .0064					
Actual = .1237					

Table A.7

BLACK AND WHITE EDUCATION, 1940-1980

A. Percentage of Men with College Degree

Age	1940	1950	1960	1970	1980
			White		
16 to 25	2.7	3.3	4.6	6.5	6.9
26 to 35	8.2	10.1	15.8	19.9	29.4
36 to 45	6.7	9.1	11.7	18.3	25.3
46 to 55	5.6	7.7	8.9	12.7	20.4
56 to 64	5.0	5.9	6.9	9.7	14.4
Total	5.5	7.3	9.9	13.1	18.8
			Black		
16 to 25	0.5	0.7	1.0	1.4	2.4
26 to 35	1.5	2.1	3.8	5.2	11.2
36 to 45	1.7	2.2	3.1	5.1	9.3
46 to 55	1.3	1.8	2.5	3.7	7.0
56 to 64	1.6	1.7	1.7	2.4	5.1
Total	1.2	1.5	2.5	3.3	6.6

B. Percentage of Men with High School Diploma

Age	1940	1950	1960	1970	1980
			White		
16 to 25	34.8	41.9	47.0	57.1	62.9
26 to 35	35.7	51.0	58.9	73.8	87.6
36 to 45	26.0	38.0	52.3	62.6	80.0
46 to 55	21.2	28.5	37.2	55.2	68.0
56 to 64	18.4	23.2	26.3	40.3	65.5
Total	24.3	39.1	46.6	59.0	72.2
			Black		
16 to 25	8.4	15.2	25.3	38.0	78.3
26 to 35	8.3	18.5	28.9	48.7	74.2
36 to 45	5.8	9.7	21.2	34.9	58.2
46 to 55	5.7	8.1	12.3	23.2	40.5
56 to 64	5.1	5.9	8.4	13.6	27.7
Total	7.2	14.1	21.0	34.2	53.3

Table A.7--continued

C. Percentage with 4 Years of Schooling or Less

Age	1940	1950	1960	1970	1980
			White		
16 to 25	3.7	3.8	1.9	1.3	0.5
26 to 35	4.4	3.8	2.7	1.7	0.8
36 to 45	6.6	5.5	3.5	2.5	1.1
46 to 55	10.2	7.9	5.2	3.2	2.1
56 to 64	14.0	12.5	8.2	5.1	3.1
Total	6.4	6.8	3.8	2.4	1.3
			Black		
16 to 25	31.4	17.8	6.3	2.8	0.8
26 to 35	36.9	21.2	12.0	4.8	1.5
36 to 45	43.6	32.5	20.9	9.7	3.3
46 to 55	51.1	44.4	32.6	17.9	9.9
56 to 64	58.3	52.4	43.8	28.6	18.5
Total	40.5	29.2	19.7	10.0	4.4
D. Percentage with Elementary School Education					
			White		
16 to 25	29.7	23.7	14.2	7.0	4.1
26 to 35	42.1	27.1	19.5	10.2	4.0
36 to 45	55.8	40.5	26.6	17.5	8.2
46 to 55	64.9	54.4	41.7	24.1	15.4
56 to 64	71.1	63.2	56.2	38.6	22.1
Total	45.6	37.7	28.5	17.0	9.0
			Black		
16 to 25	72.9	56.2	32.4	15.7	7.9
26 to 35	81.2	60.9	43.7	20.9	7.7
36 to 45	87.0	75.7	58.8	37.4	17.3
46 to 55	89.7	83.5	74.8	53.9	35.5
56 to 64	91.2	86.8	83.2	70.7	51.0
Total	83.0	69.0	54.1	33.4	17.4

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